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## Introduction

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Shaping Norfolk's Future has commissioned this study to provide a better understanding of the web development and digital technology sector in the sub-region. This report, and its conclusions, provide decision support data to determine whether the establishment of a 'digital' sector group - the purpose of which would be to grow this sub-sector cluster, market its capabilities, and identify and bridge the skills gaps - could deliver a return on investment to the economy of Norfolk.

The continued importance of knowledge based industries for economic development: The past thirty years have seen a huge change in the structure of employment in the UK. In 1978 more people worked as employees in manufacturing (just under 30 per cent) than in the industries subsequently classified by the OECD as 'knowledge intensive services' (c. 25 per cent). By 2007 just over 10 per cent of employees worked in manufacturing and over 40 per cent worked in knowledge intensive services.

Knowledge-intensive services acted as the primary source of economic growth in the boom period of the last decade, generating significantly more new jobs and productivity than other sectors. Between 1995 and 2005, 12 new jobs were created in knowledge intensive industries<sup>i</sup> for every one new job created in other industries and nearly half of all UK employment was in knowledge intensive industries by 2007. The knowledge economy has been equally beneficial in stimulating the growth of SMEs and large firms in the UK over the past decade. Employment levels in knowledge based services have increased significantly.<sup>ii</sup> In contrast, we do not find employment levels in SMEs increased in more traditional sectors. This is consistent with large firms securing larger market share in areas such as retailing and hospitality through economies of scale. As a result, the SME population is becoming more concentrated in knowledge based sectors and especially in knowledge based services.

Sectors and sub-sectors for city and county growth: Growth in medium-sized cities has been particularly significant within business and high tech service sectors. Employment in these sectors grew faster than the national average in the majority of medium-sized cities between 1998 and 2007, for instance by more than 55 per cent in Norwich and Ipswich and over 80 per cent in Exeter, compared to the national average of 33 per cent.

Harnessing new and future technologies for growth: 'Radical changes in ICT and biotechnology have created market opportunities that are more effectively developed by new firms than by established companies. The shift to knowledge based activity is said to be the driving force underlying the emergence of the entrepreneurial economy'<sup>iii</sup>.

In a wider ranging review of the future of work itself, Moynagh and Worsley<sup>iv</sup> suggest that market driven demand for personalised services increases the opportunities for new entrepreneurs, aided by the development of open digital networks. The increase in outsourcing and decentralisation of budget control in public services - such as education and health - also encourages new enterprises to enter expanding markets for private-sector service providers. The high awareness and familiarity of younger generations with computing, internet and online networking makes them better prepared to take advantage of entrepreneurial opportunities in the knowledge economy.

Increasing capabilities through effective networking and partnering: Encouraging SMEs to form networks – potentially in collaboration with larger firms – can quickly improve growth and GVA. Networks of SMEs form even more readily in a knowledge based economy because as well as the traditional advantages of cooperation, the globalisation and digitization of supply and production chains associated with large firms opens up new possibilities for groups of fast growing knowledge and technology based SMEs to satisfy those firms no matter where they are based.

"A key focus of enterprise policy should be the formation and development of collaborative networks both between knowledge based SMEs and between knowledge based large and small firms, rather than focusing on across the board increases in start-ups." *Knowledge Economy and Enterprise, Ian Brinkley, Work Foundation 2008*

Peter White

Virginie Vinel

Cambridge March, 2010

## The web development & digital technologies sector

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In order to determine whether a web development and digital technology subsector is a viable proposition to support in the county, we have assembled information from three main sources:

- A review of the International market for web and mobile services, with as much available information gathered as possible on market size, market trends, and growth, to give an indication of the priority opportunities
- An Online survey with as many of the local Web development companies as possible, complemented by a focus group with leading local companies, covering additional topics
- A review of other regions' or sub regions' support for ICT, creative, and digital sectors, to gain an indication of the "competition" and of typical levels of funding and subsidy, and also outcomes expected.

At the end of this document, we bring together our findings and suggest possible ways forward for development of this new cluster, and its support, in Norfolk. We also refer to best practice in other regions, and indicate how a strong differentiator needs to be achieved in to ensure that the county gains the attention and subsequent revenues for local companies.

In this report, we have inserted **"comment boxes"** which are then brought together to influence our findings in the final section.

## Is there demand, and is it sustainable?

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### Market size

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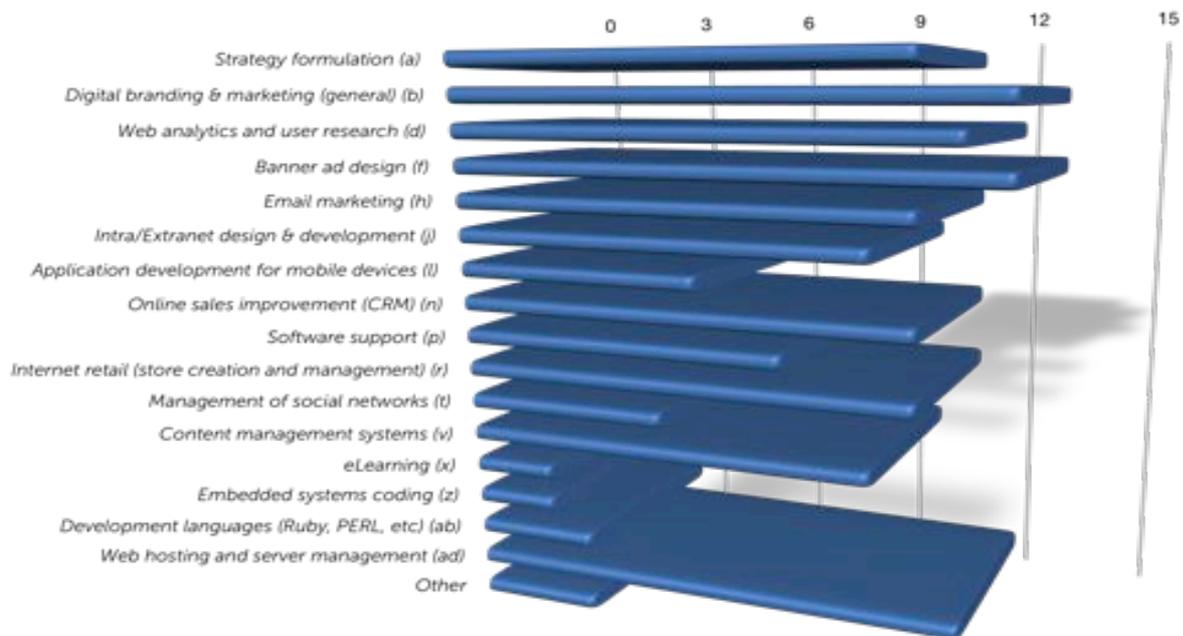
For this report, we have taken a subset of the ICT sector and a subset of the Creative Industries sector, and concentrated on the higher value web development and digital technology space, finding local companies, of all sizes and in all stages of growth, and also investigating the trends. We have also included some of the subsectors traditionally associated with creative industries, but only where there is a substantial technology element. For example we have not included content creation, such as film and TV, but we have included such areas as animation and digital postproduction. We have also not included consumer games applications as such, but have spoken to companies that are using games based expertise to develop educational and promotional tools and applications.

Typically, companies and organizations we have approached to take part in the data-gathering part of this report are active in one or many of the following:

- Accessibility
- Affiliate Marketing
- Animation (2D, 3D)
- Comparison Engines
- Content Management
- Ecommerce
- E-learning
- Email Marketing
- Games-based applications
- Hosting & Managed Services
- IPTV production and post-production
- Location based services
- Localisation services
- Mobile Internet
- Multichannel Marketing
- Online Advertising/Media planning and buying
- Online Customer Service (FAQ/Knowledge management)
- Open Source consultancy
- Proximity media and marketing
- Social Media
- Software As A Service
- Surveys & Research
- Search Marketing - Organic/Natural (SEO)

- Search Marketing - Paid (PPC)
- Site Monitoring & Testing
- Site Search & Merchandising
- Social Networks & Online Communities
- Strategy & Planning
- User Experience & Usability
- Web Analytics & Optimisation
- Web Design
- Web Development
- Web Project Management

These have been assembled into seven specific categories. Additionally, we have taken the responses from the online survey where the respondents self selected themselves by type of activity. As can be seen from the graph below, many of the companies carry out multiple activities, with the two most popular activities carried out, or managed, or sold, by 13 of the companies responding.

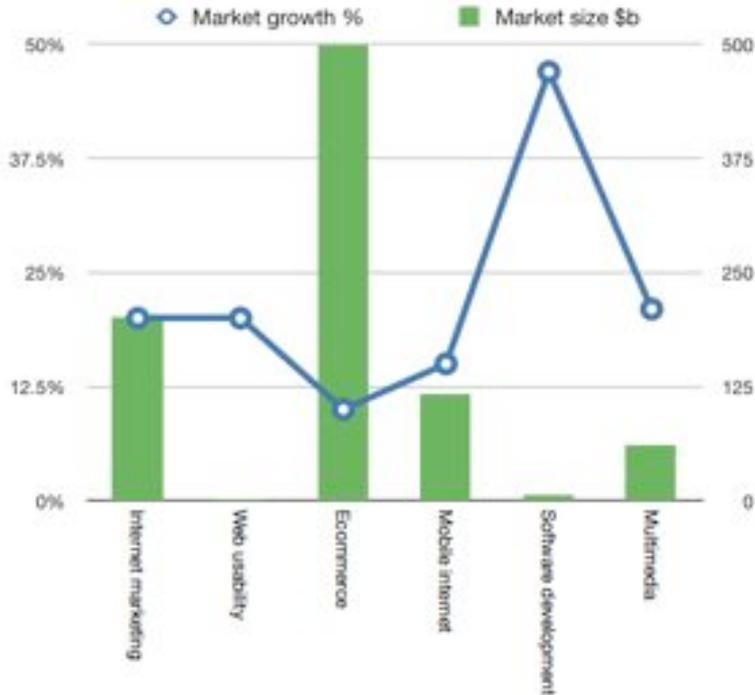


In such a fast changing business, there will undoubtedly be areas that we have overlooked and other areas that are either being subsumed or reducing in importance.

It's worth noting that we have not included many very small web design and development companies in our research, as we believe that the responses from such organizations would skew the findings. Also, in many cases, these companies are primarily lifestyle businesses, which, although providing a useful income for their principals, have traditionally offered little opportunity for GVA.

The Internet and digital marketplace is wide and spills over into many other areas. To try and provide a degree of certainty and specificity to the opportunities presenting themselves now and in the future, we have broken down the market into separate segments, and used the most up-to-date information and data to provide a useful comment on where the greatest potential may lie.

Lastly, we have mapped the available levels of opportunity - that is, how large or how fast-growing the opportunities may be - for many of these specific areas against the capability responses from the online survey. This enables us, albeit informally, to provide some sort of gap analysis to indicate where there are skills or expertise mismatches to present or future opportunities.



*Internet and mobile growth and market size – various sources 2007- 2010*

NB: Many more survey questions and answers are detailed in the Mapping section of this report.

## Segmentation

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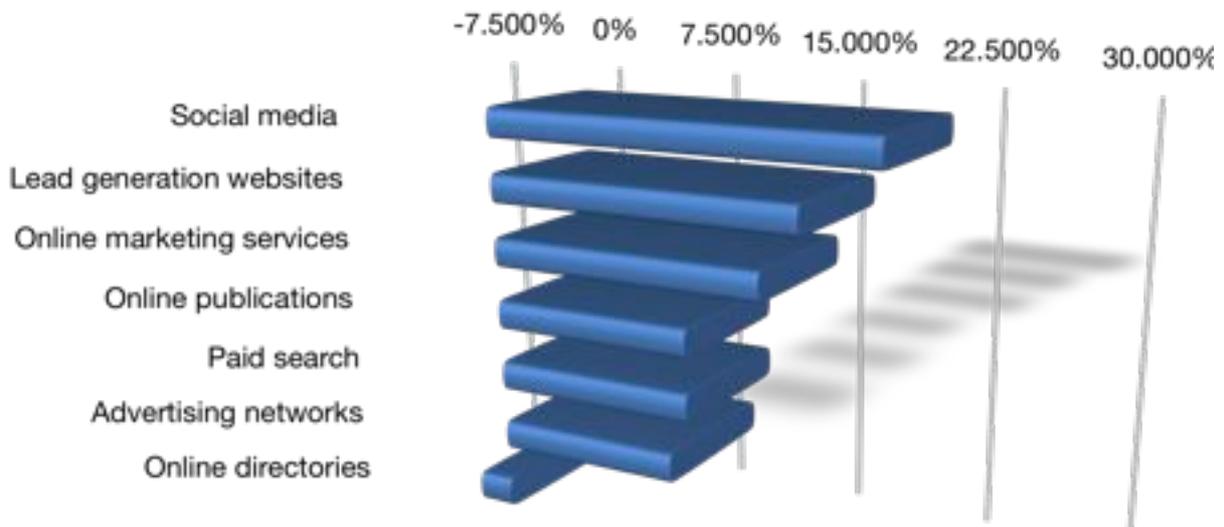
As mentioned, the web development and mobile technology sectors are constantly changing, not only to reflect new technologies and new applications, but also by description. We have tried as much as possible to be consistent with descriptions of the different segments of the sector, but some degree of overlap and possible duplication cannot be avoided.

The following sections detail the main segments of the web, mobile and software development sectors, and provide a briefing on the size and growth rates of the segments.

### Internet Marketing

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The graph below indicates the business to business online marketing spending<sup>v</sup> forecast by type of channel between now and 2013. It's evident that social media, and websites that primarily create enquiries and sales will be the leading contenders for client budgets, and consequently where SME providers will concentrate on offering their services.



*Online marketing spending forecast by type of channel – source ExactTarget 2009*

This survey, carried out by US consultancy ExactTarget, polled over 1000 company and agency marketers around the globe. In total the consultancy envisages a 17 per cent surge in digital marketing spending this year, as marketers migrate budgets from television, print and radio.

The outlook for offline/traditional channels is much less favourable than digital competitors, where 28 per cent of marketers will shift their overall marketing budgets towards digital in 2010.

There is a much healthier outlook for the burgeoning digital marketing industry, with 66 per cent of companies increasing their online marketing spend, and a further 30 per cent stating that they will maintain the same levels of spend in this area. On average, digital/online marketing currently accounts for 24% of overall marketing spend.

70 per cent of in-house marketers plan to increase their budgets for off-site social media marketing efforts, using agencies to engage with audiences on Facebook, Twitter and other social networking sites. But according to agency respondents the biggest impediment to

digital marketing investment is a general lack of understanding of digital marketing channels. Just under half (48%) of agency respondents cite this as the key reason, which prevents their clients from investing more money in this area.

**Creating initially a local campaign to educate clients in all aspects of online marketing, and then rolling this campaign out nationally may provide useful sales leads for Norfolk companies.**

Internet marketing in financial services. A November 2009 US survey shows that insurance consumers' buying and shopping attitudes have changed as they use the Internet to search about insurance. The trend of customers using the Internet presents a marketing opportunity for all financial service organisations. As a result, the Internet can be used as a marketing tool in several ways which include blogs, social networking, and search engine optimization.<sup>vi</sup>

Forrester Research's March 2009 survey showed that the categories marketers plan to increase spending in are social media projects, online video, search engine optimization and mobile marketing.<sup>vii</sup> Online display spending will remain flat. Traditional media like newspapers, radio and TV also remain flat or go down. In this recession, online is increasing and Forrester estimated the total digital spending in 2009 would reach \$25.6 billion or 12% of total marketing spending. It will reach \$47.4 billion by 2013 and represent 19% of marketing spending.

Reasons for this growth: Marketers are being prudent, and typically commissioning marketing programmes that extend and enhance existing campaigns. Online marketing is used to feed the whole marketing funnel with clicks from banner ads, blogs, and search ads. Word of mouth is considered the most essential part of the digital mix in the recession. This is where social technology plays an essential role. The impact of digital marketing can turn into a long-term marketing asset. The mantra is to build social networks now and tap into them later.

Research by the European Interactive Marketing Association (EIAA)<sup>viii</sup> showed that 64% of European marketers intended to increase their use of search engine optimization (SEO) in 2009, and 70% of advertisers planned to increase their overall internet spend.

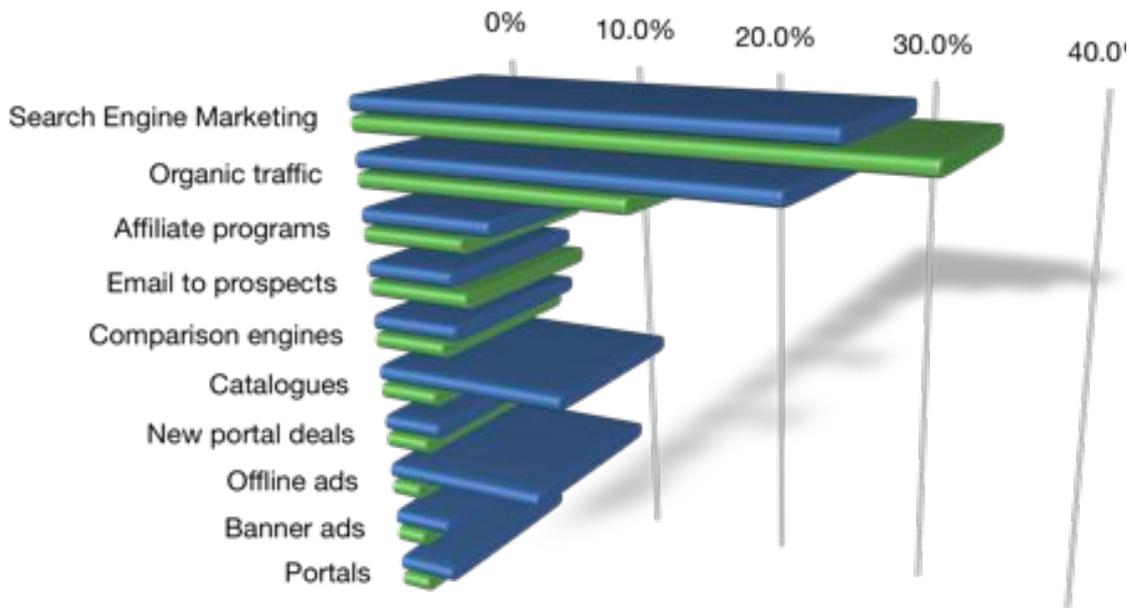
A demand for multilingual marketing strategy is now more evident, underpinning international campaigns.

**Website localization is an opportunity: research by Common Sense Advisory has shown that consumers are four times more likely to buy from a website that is written in their own language. Good international transport links from Norwich airport suggests that localising foreign language online activities into good English could be a lucrative niche market for local companies.**

There is a trend for big ad agencies – such as Big Spaceship, Imano, and Rockfish Interactive – to expand their operations beyond the creation of Internet advertising for clients to creating other Internet-based services such as Internet games and application software which are then used for marketing purposes.<sup>ix</sup>

**Some of the Norfolk companies surveyed, and to who attended the focus group, are very much in the vanguard of developing "rich" experiences for web users. Promoting these organisations case histories would provide an excellent showcase generally for work in the county.**

Search engine optimization continues to become more important with a 35% year-on-year Google query growth.<sup>x</sup> However, search engine optimisation and search engine marketing tends to be carried out by small consultancies, and, although a very important component of effective online marketing, is highly competitive and price sensitive.



Marketing Spend to reach new customers 2006 and 2007

Source Forrester, comScore Global, Morgan Stanley

Internet marketing will be more regulated by 2015, controlling more than \$250 billion in Internet marketing spending worldwide, according to the Gartner Group<sup>xi</sup>:

Despite international efforts to eliminate “spam,” marketing “clutter” is abundant in every marketing channel. Pressure for greater accountability means the backlash from annoyed consumers will eventually drive legislation to regulate Internet marketing.

Companies that focus primarily on the Internet for marketing purposes could find themselves unable to market effectively to customers, putting themselves at a competitive disadvantage when new regulations take effect. Although experiencing high growth, vendors who focus solely on, and sell predominately, internet marketing solutions could find themselves faced with a declining market, as companies shift marketing funds to other channels to compensate.

## Web Accessibility, Usability & User Research

User Experience Buyer’s guide 2009<sup>xii</sup> lists the following leading companies in this market: AbilityNet, Amberlight, Bunnyfoot, Clearleft, cxpartners, Experience Solutions, fhios, Flow Interactive, Foolproof, Foviance, Generator Consulting, Human Factors Europe, The Lighthouse Experience, Nomensa, PRWD, RedEye optimum.web, Serco Usability Services, Simple Usability, Spotless Interactive, System Concepts, The Usability Lab, UsabilityWorks, Userfocus, User Vision, we are: london, Webcredible, Web Usability Partnership (WUP).

Web usability has moved beyond simply “making sites work”, to researching customers and designing services to boost electronic commerce.<sup>xiii</sup> With the plethora of mobile devices, there’s a massive requirement to overcome the huge challenge with so many different electronic devices running on different platforms displaying content on a multitude of screen sizes.

Morgan Stanley report says that the UK Internet Accessibility Market to Grow by 25% in 2010.

The combined UK Internet usability and accessibility market was forecast to be worth more than \$181 million USD in 2005, according to research published by E-consultancy, a London-

based Internet marketing group. There is increased awareness of the benefits of improved website usability and accessibility.

"Accessibility services have quickly grown to account for at least a fifth of market revenues. Our research shows that spending in this area has risen rapidly on concerns about being prosecuted, with companies obliged to comply with the [recently instituted] Disability Discrimination Act," said Ashley Friedlein, CEO of E-consultancy.

The consultancy also reports that although specifically accessibility spending is being driven by legal concerns, the accessibility market has a limited shelf life of three years or so and that its growth will be threatened if there are no high-profile prosecutions when companies fail to comply with the DDA. The analysts predict that ongoing growth will be determined by litigations or the lack thereof.

E-consultancy also reports that blue chips and the public sector are currently leading the way in spending on accessibility, SMEs lag way behind, with the biggest spenders being found in the financial services, online retail, and public sector/e-government sectors<sup>xiv</sup>.

Companies across a range of sectors continue to spend despite recession, with a focus on ROI and initiatives to improve online customer conversion and retention, rather than acquisition. User experience continues to be considered a more strategic issue.

Online testing is more prevalent, with companies using qualitative techniques to give meaning to quantitative data. There is evidence of increased use of split testing and multivariate testing.

The social media explosion means that companies cannot afford to get it wrong. 75% of advertisers are willing to bid more for behavioral targeting. This shows that research tools to identify user experience have a potential in the "internet marketing" market<sup>xv</sup>.

## **Web and digital consultancy**

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Typically, consultancy has been either carried out by smaller local organizations or delivered as part of a full-service package by the larger digital marketing agencies. However, with the number of new services and the continual movement of marketing budgets online, away from traditional media, there appears to be a resurgence in both the size of consultancies and also the more strategic aspects of the services they are delivering.

For example, Google UK marketing executives left the company recently to create a consulting company advising businesses that feel overwhelmed with the amount of data, tools and marketing solutions available<sup>xvi</sup>.

Graham Cook, who was Global leader on Google's strategy for conversion rate improvement said "we saw a huge opportunity to get closer to customers and help them improve their profits by fixing the blockages on websites through better understanding of their data. Often businesses have the right pieces to the puzzle: it's just about helping them put together the best strategy in the most efficient way."

In the focus group discussions, several members mentioned that they were now being 'attacked' by traditional ad agencies offering strategic services to their 'digital' client base, and felt that they (the Norfolk digital companies) were at a disadvantage since they were not able to offer strategic consultancy across all media. This consolidation of marketing strategy and planning – traditional and online – is a major trend, and favours larger and more 'media agnostic' consultancies offering integrated planning. Collaboration is an opportunity here to gain additional and complementary services, while still retaining customer loyalty.

## E-commerce

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Although internet penetration has reached a plateau at around 70% of the population, the popularity of buying online has increased in spite of the recession. Some 42% of UK consumers say they have bought more than last year against 16% who say they have bought less<sup>xvii</sup>. But the recession has hit the willingness to buy higher ticket price items: there has been a small net reduction in the number of people buying higher value goods.

Delivery ought to be one of the major problems for any form of home shopping. That is why there is a high take up of services such as Argos' which allow customers to reserve goods and then collect them from the store (22% say they do that). But other alternatives, such as collecting from a local store, or having goods delivered to work are much less popular (3% and 5% respectively).

In the U.S. e-retailers control 75% of a worldwide e-commerce market estimated at \$657 billion<sup>xviii</sup>.

Forrester research's five year prediction of US e-commerce sales suggests a continuous growth of 10 percent year-on-year through 2014. It further projected that online retail sales in the U.S. is going to touch \$250 billion in 2014 which currently stands at \$155 billion in 2009. Online retail sales went up to 11 percent last year, compared to 2.5 percent for all retail sales. In Europe, the online retail sales will grow from \$93 million (68 million Euros) in 2009 to \$156 million (114.5 million Euros) in 2014. Online retail sales does not include auto, travel and prescription drugs.

In total, the UK e-commerce technology market was expected to be worth £540m by end of 2009<sup>xix</sup>. Note that this is not the same as the overall e-commerce market, which includes the transaction values.

Market trends in 2010 include:

- The 'offline world' realises the over-riding importance of e-commerce,
- Site owners use data to optimise e-commerce performance
- Retailers seek to differentiate, and embrace users
- Multi-channel firms strive for an integrated approach.

However all is not well with European e-commerce, with new rules and regulations providing a threat<sup>xx</sup>. The Electronic Commerce Directive, adopted in June 2000, is meant to provide legal certainty across the EU on all areas related to online commerce. The directive limits the liability of intermediary services in transmitting, 'caching' and storing information.

"Member states shall not impose a general obligation on providers [...] to monitor the information which they transmit or store, nor a general obligation actively to seek facts or circumstances indicating illegal activity," reads the legislative text.

But a decree signed by Italian Vice-Minister for Industry Paolo Romani instead proposes strong penalties for intermediaries which publish illegal content on their platforms. The European Commission is concerned about a draft Italian law requiring video-sharing platforms such as YouTube to check that user-generated content is lawful before it is posted. Many fear that the move - a clear breach of the E-Commerce Directive - could set a dangerous precedent for other EU countries to follow.

The draft decree treats video-sharing platforms as normal television, without taking into consideration that user-generated content makes up a large proportion of what Internet platforms offer.

The past 12 months have been a bumper year for cyber crime - that could be additional bad news for the future of e-commerce<sup>xxi</sup>. The past year saw an explosion of individuals on social networking sites such as Facebook having their accounts compromised and spam being sent to friends within their network.

In this way, cyber criminals have made the attacks more personal because they are sending out messages appropriating victims' names, says Marian Merritt, an Internet safety advisor for Norton, the antivirus brand produced by Symantec. "In the past, people felt annoyed by spam, they didn't really feel a sense of being attacked," Merritt said. "But if your Facebook account is hacked, it's embarrassing."

**Comment:**

**New legislation and customer concern are both great drivers of technology, and technology services, and complying with any new directives may provide new opportunities.**

## Multimedia

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In 1997, Znet<sup>xxii</sup> had predicted that the multimedia market could reach \$38.34 billion by 2003. Multimedia was seen as now being "mainstream" and has "nearly run its full course." However, it added that there was still considerable debate on how multimedia applications such as home shopping and video on demand will be introduced into the home, with telcos, television - both cable and satellite - and PC suppliers, all vying for the definitive solution.

"As the market grows, it will begin to merge with telecommunications on one side and the television on the other," said Norman Bartlett, the author of the report. "This merging is already creating some interesting developments in the business. The expansion in computer applications will be a major driver. The growing interest in video telephony on the PC will have a major effect on the working environment in offices."

In fact, multimedia as a sector is now simply seen as part of the whole digital landscape. Content is converging; films become video games, TV shows are online and interactive experiences, completely new types of content, such as augmented reality gaming, are emerging. Technology is also converging: newspapers can be read on the web and mobile devices while music can be listened to on an iPod, games console or via streaming.

Today's Internet represents a multi-provider environment as a basis for global service delivery with a set of services, business roles, and strategies. **The integration of data and telecommunication, especially for multimedia services**, requires Quality-of-Service (QoS) for the transport of data. Furthermore, it demands a value-added Internet with communication and network services as well as charging functions between entities and services<sup>xxiii</sup>.

Management and development of monitoring and routing products ensure that high bandwidth applications such as video and gaming work properly to ensure a rich customer experience, and it is here that the major opportunities lie, supporting the development and distribution of content of all sorts across the Internet and onto mobile devices.

According to the Beacons for innovation of the Knowledge Technology Network, some of the technology issues to consider for the expansion of digital content are<sup>xxiv</sup>:

- Fixed networks
- Mobile networks
- Search
- Storage
- Connections
- Security
- Service platforms
- Sensors
- Display technology
- Interaction
- Content formats
- Location based
- Software
- Media archiving
- A.I. (Artificial intelligence)
- Media
- Meta data (content based on user behaviour and preferences, semantic search replaced by intelligent context related content delivery).

A strong theme running throughout the Beacon project is the importance of metadata to businesses as they develop content and the opportunities it offers to users to interact with devices and add value to content.

**"Pervasive networks and the possibility of creating hybrid and completely new types of media experiences will be a driver for the next wave of digital media content and innovation." Clare Reddington, Director, iShed and the Pervasive Media Studio.**

## Software development

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Software development covers an enormously wide spectrum of activity. At the enterprise level, typical development budgets will be in the tens of millions which may well be out the scope of any of the organizations in Norfolk. However, it may be possible to achieve lucrative subcontractor contracts by ensuring that the quality and reliability of locally produced work is known to the major systems integrators.

Laurent Lachalt at Ovum predicts that during the recession, UK software providers will try to make their revenues less dependent on up-front licensing fees by relying more on maintenance revenues and by expanding into software as a service.<sup>xxv</sup>

Constantly, opportunities appear for specific software development projects. For example, the European Commission is also still investigating whether Microsoft has complied with previous orders to share confidential operating code with rivals. This would open the way for development of third-party software that would work better with computers running Windows.<sup>xxvi</sup>

Demand for electronic security is also surging, particularly in the Middle East. The region is also dealing with increasing number of security concerns ranging from border security and private citizen safety to transaction fraud. As the imports of safety and security products in the region have been growing 10%-15% annually, the Middle East is fast becoming one of the most attractive markets for this industry in the world. Network intrusion protection systems, web security systems, CCTVs and related security software development are some of the areas full of opportunities.<sup>xxvii</sup>

Gartner said the worldwide security software sales totalled £5.2bn in 2007, an increase of 19.8% from 2006 revenue of £4.3bn<sup>xxviii</sup>.

Cloud computing: Worldwide cloud services revenue is on pace to surpass \$56.3 billion in 2009, a 21.3 percent increase from 2008 revenue of \$46.4 billion, according to Gartner, Inc. The market is expected to reach \$150.1 billion in 2013.

The largest component of the overall cloud services market is cloud-based advertising. This component represented 60 percent of the market in 2008 with revenue of \$28 billion and is forecast to reach \$33 billion, and make up 58 percent of the overall market in 2009. This reflects the success of Google in creating a new business and delivery model for IT-based services, which is being emulated by Yahoo, Microsoft and others.<sup>xxix</sup>

## Mobile applications

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There are more users of mobile phones worldwide than the total number of Internet users. This massive user base is responsible for the continued growth of mobile apps: consumers are paying more and more for mobile applications, and that interest could translate into more PR branding efforts involving mobile apps<sup>xxx</sup>. The Gartner report "Application stores: the revenue opportunity beyond the hype" suggests that consumers will spend \$6.2b in 2010 in online mobile applications stores. Eight out of 10 applications will be free to end-users however. Games remains the primary application, while mobile shopping, social networking, utilities and productivity tools are growing in terms of downloads.

Another report by Compass Intelligence evidences this soaring mobile applications market. It suggests that the mobile applications market is poised to hit the \$9 billion mark by 2011. The research firm cites several reasons including better accessibility offered by mobile devices, the need to share files with staff, and ability to improve overall productivity, for the mobile applications' market growth among businesses.

According to Gartner's numbers and those reported by Apple, Apple owns this market, likely grabbing almost every one of the 4.2 billion dollars spent on mobile apps in 2009. Based on Gartner's estimates, Apple could hold on to at least two-thirds of the market if current sales trends hold for 2010.

Apple first opened the App Store in July 2008, along with the launch of the iPhone 3G and the release of iPhone OS 2.0. Sales were brisk, with 300 million apps sold by December. After the holidays, that number had jumped to 500 million. Earlier this month, Apple announced that sales had topped 3 billion; that means iPhone users downloaded 2.5 billion apps in 2009 alone. Gartner's figures show another 16 million apps that could come from other platform's recently opened app stores, giving Apple at least 99.4 percent of all mobile apps sold for the year.

**Almost any developer can place their product in Apple's store: it's open to even the smallest developer with a compelling idea and good quality execution. A one-day workshop could provide the impetus for smaller local companies to exploit this opportunity.**

The multi-billion dollar market for mobile value added services (MVAS) continues to be strong particularly in Asia, with the majority of the early adoption coming from urban youth. Most operators in Asia view VAS as a differentiator and continue to adjust offerings to meet the latest trends.<sup>xxx1</sup>

Understanding the consumer perspective – both the early adopters and the followers – is critical to achieving a breakthrough in stemming the declining ARPU (Average Revenue Per User) levels.

According to a research report by research2guidance, the yearly applications revenues are likely to increase from \$1.94 billion in 2009 to \$15.64 billion in 2013. The rising market share of smartphones combined with increasing interest in mobile applications from OEMs, OS developers and mobile network operators, is driving the industry forward.

Additionally, new marketplaces being introduced by OEMs will help tap a wider user base. In 2009, Microsoft and Research in Motion (RIM) launched their own mobile marketplaces making the mobile apps emporium broader. This year, the companies are likely to make enhancements to their existing apps marketplaces to attract more users. Nokia confirmed this by stating that it would focus more on its Ovi Store to tap the mobile apps market opportunity. Samsung, too, has plans to set up a marketplace based on its new platform Bada.

For those mobile developers looking to increase their skills in this market, the European Commission programme called Mobip could benefit Norfolk businesses. The objectives are:

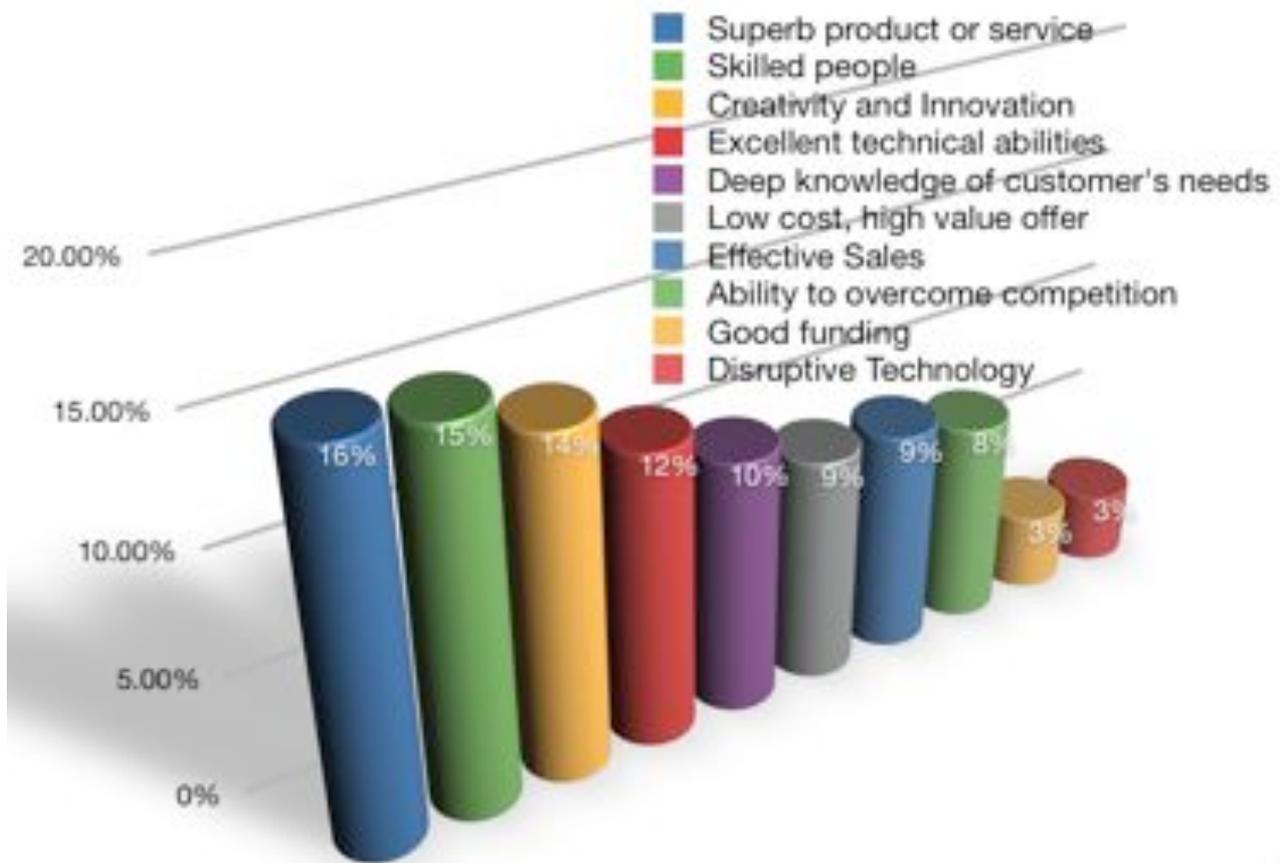
- To support the evolution of European gazelles in mobile services by identifying SMEs with high-growth potential and improving their innovation capacity and investment readiness and access to international markets
- To foster all dimensions of innovation in mobile services
- To develop new or better tools for innovation support by building on successful initiatives.<sup>xxxii</sup>

## Which sector, which opportunity for Norfolk’s digital community?

There is obviously a wealth of opportunity in every sector: the need for small companies to keep abreast of developments, especially the latest tools to enable them to both deliver and measure the work they are doing for their clients, is constant. Companies that specialise in particular sectors must be aware of developments in other sectors, which can quickly cross borders and impact on their future sustainability.

One of the questions in our online survey asked the respondents to rate, in their opinion, the key success factors of their business. Top rated was a “superb product or service”: this may appear to be a valid and reasonable answer, but it does suggest that many of local companies are overly focused on their product or service and not fully on the market and on customer needs.

In fact, “deep knowledge of customer needs” is rated as important by only 10% of the respondents, as against 16% who considered product or service quality to be most important.



### Key success factors as prioritised by online survey respondents

Source: YTKO survey for Shaping Norfolk’s Future March 2010. Weighting – maximum for first place, linear to last

The same question also asked respondents to rate the importance of funding to grow their business. Having adequate funding enables even the smallest company to be strategic, and to consider where best to promote their unique abilities, and to develop and grow those same

abilities. Surprisingly, only 3% of the respondents gave any degree of importance to good funding. This is also surprising in view of the many government support initiatives to promote 'access' and 'understanding' of finance with SMEs.

The second and third rated success factors were skilled people, and creativity and innovation, closely followed by excellent technical abilities. At the focus group, attendees discussed the problems with recruiting staff who had good knowledge of the latest tools and methods. Our conclusions are that there is probably an overdependence on existing staff, and relatively little headroom to allow those staff to investigate and educate themselves on new processes.

Continually assessing and deciding whether to enter new markets appears to be low on the priorities of most of the local companies, but this is mainly due to a lack of time, and also a lack of available information. Any support program could usefully develop an "observatory" to ensure that new trends and new opportunities are quickly assessed and put before companies for them to match with their skill sets, and test the market. (In the section "Matching Skills to Opportunities later in this report, we demonstrate how a simple matching tool can be used).

It's likely that many companies have invested in new tools, or developed new processes or products, only to find that the market did not respond or had simply moved on. As mentioned in the next section, a general business survey on business optimism in the region (not specific to the digital sector, however) suggested that one of the main concerns, and one of the areas where investment was considered by firms to be important, was sales and marketing. Again, support in this area to ensure that there not only is a market ("proof of market") but that it can be effectively served by local companies, would pay dividends, even if just to save time and effort chasing after unlikely opportunities.

## The situation in Norfolk

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### The Mapping Exercise – Survey results

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Initially, a selection of company descriptors was developed in order to scout candidate companies to build the database. Companies that focus on web design or were part of a creative organisation, such as an advertising agency or graphic design group, were excluded. Using a selection of directories, both online and printed, plus the membership records and prospect records of the Norfolk network, we were able to identify in total 172 Norfolk organisations that carried out, either as their main or a substantial part of their business, Web development, mobile applications, software development and other Internet-based work, all with a very high technology component.

150 of these 172 contacts were called and invited to complete an online survey of over 40 specific questions.

Over 18% completed the survey, with some respondents completing compulsory survey questions via phone. The survey can remain open after the nominal closing date of 22 March.

The first question asked was for the postcode of the company, enabling us to Google-map the respondents. 160 contacts have been mapped and also allocated into specific categories of the main type of work undertaken by the company.

The map is at <http://tinyurl.com/ykw4xoa>



Category codes are as follows: (these follow industry-standard CPV designations)

79340000-9	Advertising and marketing services.
72212400-3	Business transaction and personal business software development services.
72212190-7	Educational software development services.
72412000-1	Electronic mail service provider.
48984000-9	Graphical user interface (GUI) tools.
72100000-6	Hardware consultancy services.
72212220-7	Internet and intranet software development services.
72420000-0	Internet development services.
72421000-7	Internet or intranet client application development services.
72415000-2	World wide web WWW site operation host services.
79413000-2	Marketing management consultancy services.
72211000-7	Programming services of systems and user software.
72200000-7	Software programming and consultancy services.
72240000-9	Systems analysis and programming services.
72220000-3	Systems and technical consultancy services.
72413000-8	World wide web WWW site design services.
30237300-2	Computer supplies.

As can be seen from the second map below, by far the greater majority of the companies are based in Norwich. (Each marker on the Google map is clickable to show the company name, address and any contact details.)



## Norfolk web dev and technology companies surveyed

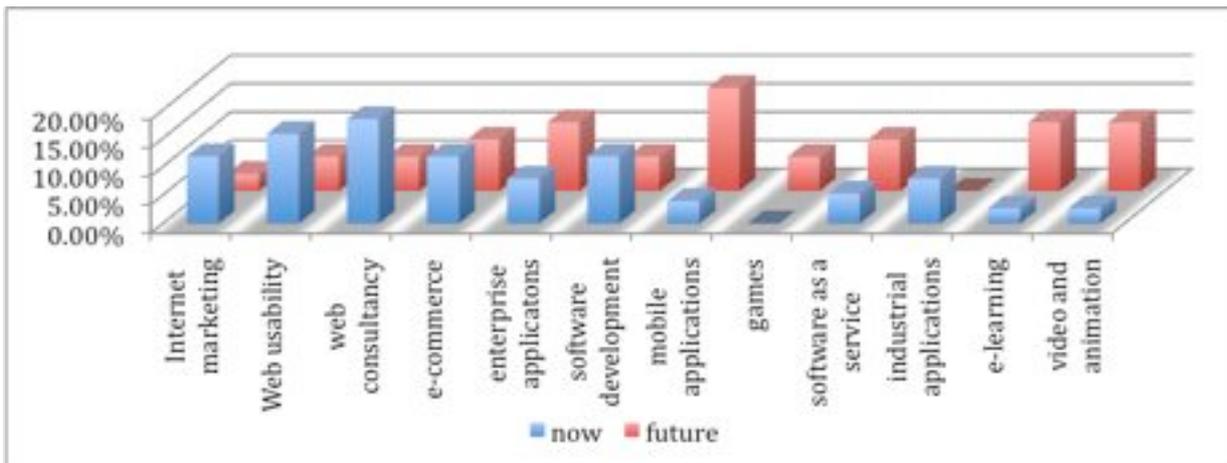
The range of services and products provided by web and software development companies in the county is wide.

As already mentioned, many of the companies will provide at least three or four different services, with some listing over 12, but the following pie chart shows the specialization of each of the companies. The source for this data is individual interviews with as many of the companies as possible, and, if it was not possible to speak to a senior person, then an abstract of their services was taken from either their websites or any other promotional material that they had published recently.

In total over 170 companies have been researched.



## Future Plans



As well as being asked in which areas they were working at present, companies were also asked which sectors they would be working in, in the future. Interestingly, the biggest reductions – capabilities where the respondents considered that there was either oversupply, few opportunities, or simply a reducing marketplace – were in regular Internet marketing

services, with a 74% reduction estimated in the future. Other declining areas were Web usability and web consultancy.

Areas where the highest expansion was envisaged included developing enterprise applications – although software development itself was seen on the decrease – and in software as a service.

Enterprise applications were the most popular area for leveraging existing skills. Overall the area seen as offering the most potential was mobile, with existing players in this area forecasting growth, and around 10% of all respondents rating mobile as the focus for their future plans. Some respondents saw opportunities in games development, and also growth in e-learning and in video and animation.

## Company size and situation

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By far the greater proportion of the companies surveyed had been set up as limited companies. Around one quarter were not incorporated, but traded as sole traders or freelancers stop a very small proportion – less than 5%, were a division or subsidiary of a larger company. Threequarters had registered for VAT.

The question was asked whether the companies were in start-up mode or had progressed and were growing, or had moved into the mature stage.

Surprisingly, around one quarter described themselves as mature. Over half considered themselves to be growing, and around 10% were at start-up stage. Nobody described themselves as pre-start.

In this creative and technology led sector, patents and registered designs are often used to combat competition or to erect barriers to entry. Only 11% have or think they will apply for IP protection.

**Investors, customers, and competition all considered the ownership of IP to be very worthwhile especially if it can be leveraged through the delivery of unique products or services. Awareness of the ease of registering design work, or the specific benefits of patents, does not appear to be high. It may be worthwhile arranging a series of IP seminars for those in the subsector.**

Staff sizes are relatively modest with an average of just over five employees per company. Growth however, was surprisingly good: since 2005 on average most companies had grown at nearly 20% per annum. 2007 had seen a slowing of growth.

The forecast for 2010 was optimistic with companies planning to increase their staff by an average of 14%.

Generally in the UK, across all sectors, typical employment growth for SMEs is around 5% per year<sup>1</sup>. The previous and planned growth rates for the sector therefore are much higher than in traditional sectors.

(See later section for more detail on growth)

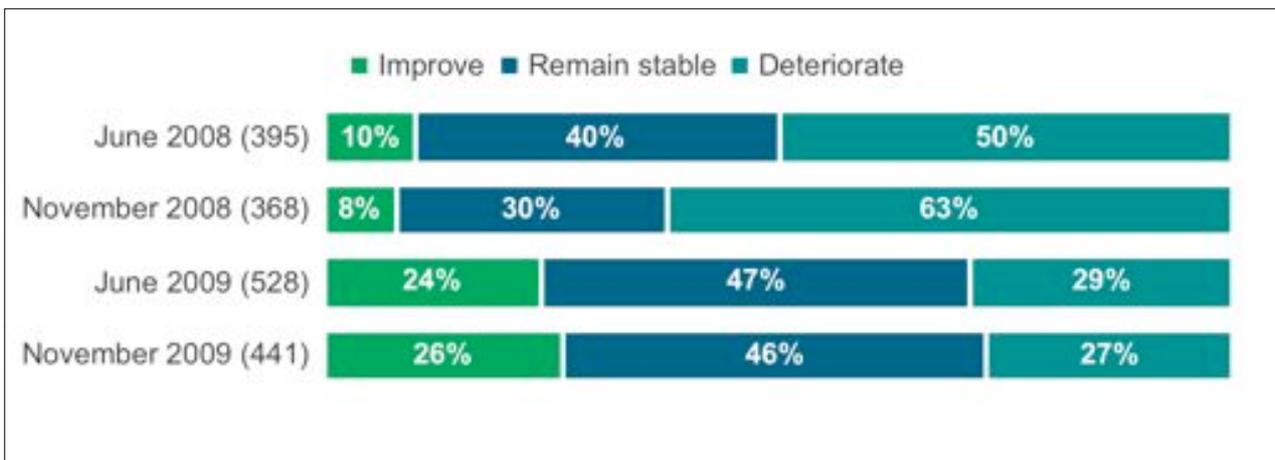
Average revenues of the companies were modest, with a typical company turning over just over £150,000 in 2009. But growth in revenues had been excellent, especially in 2007 and 2008, typically over 20%.

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<sup>1</sup> Centre for Business Research at Cambridge University

Forecasts for 2010 and beyond were not as optimistic as the actual achievements that have been made in previous years, just 18%.

## Business Optimism



Latest data (November 2009) from the National Business Survey (NBS), conducted by Ipsos MORI on behalf of the Regional Development Agency Network, demonstrate the continued challenging conditions faced by businesses; 47 per cent reported declining business performance in the past 12 months. However, the NBS indicates that market conditions are stabilising and there has been a slight overall improvement in business performance compared to June 2009.

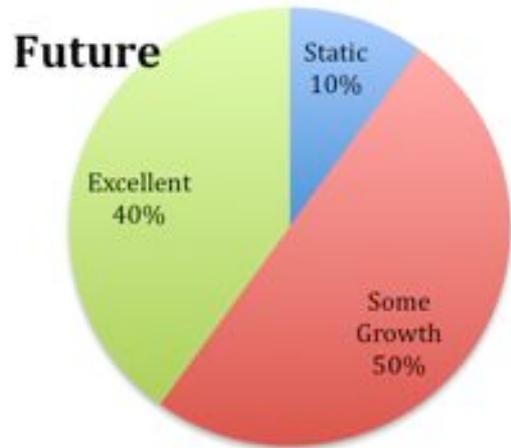
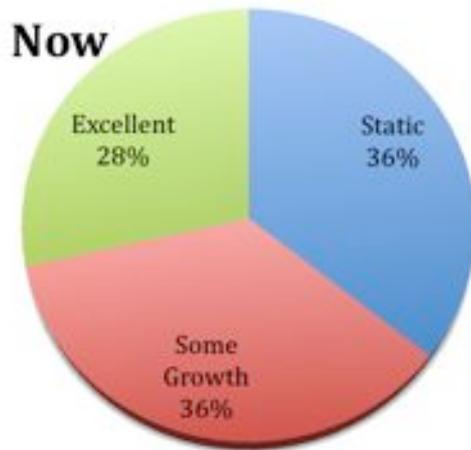
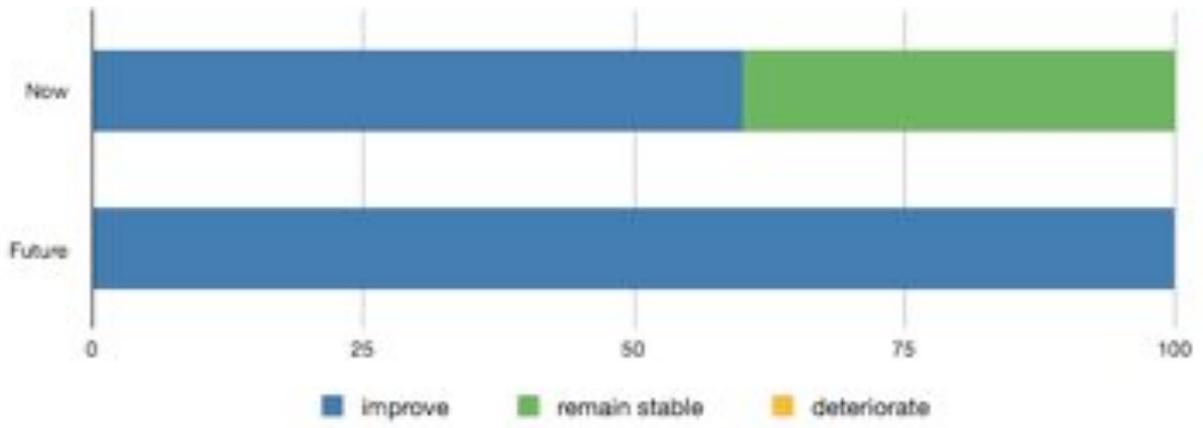
In the East of England, businesses have performed at the national average over the past 12 months. Since the last Survey in June 2009, progress can be seen as more businesses are reporting that performance has remained stable (33 per cent compared with 28 per cent in June 2009)

72 per cent of firms in the East of England region expect the business climate in which they operate to either improve (26 per cent) or remain stable (46 per cent)

Compared with June 2009 results fewer businesses (70 per cent) believe they are well placed to handle a further economic downturn. This may be attributable to many excess resources and capabilities being extinguished

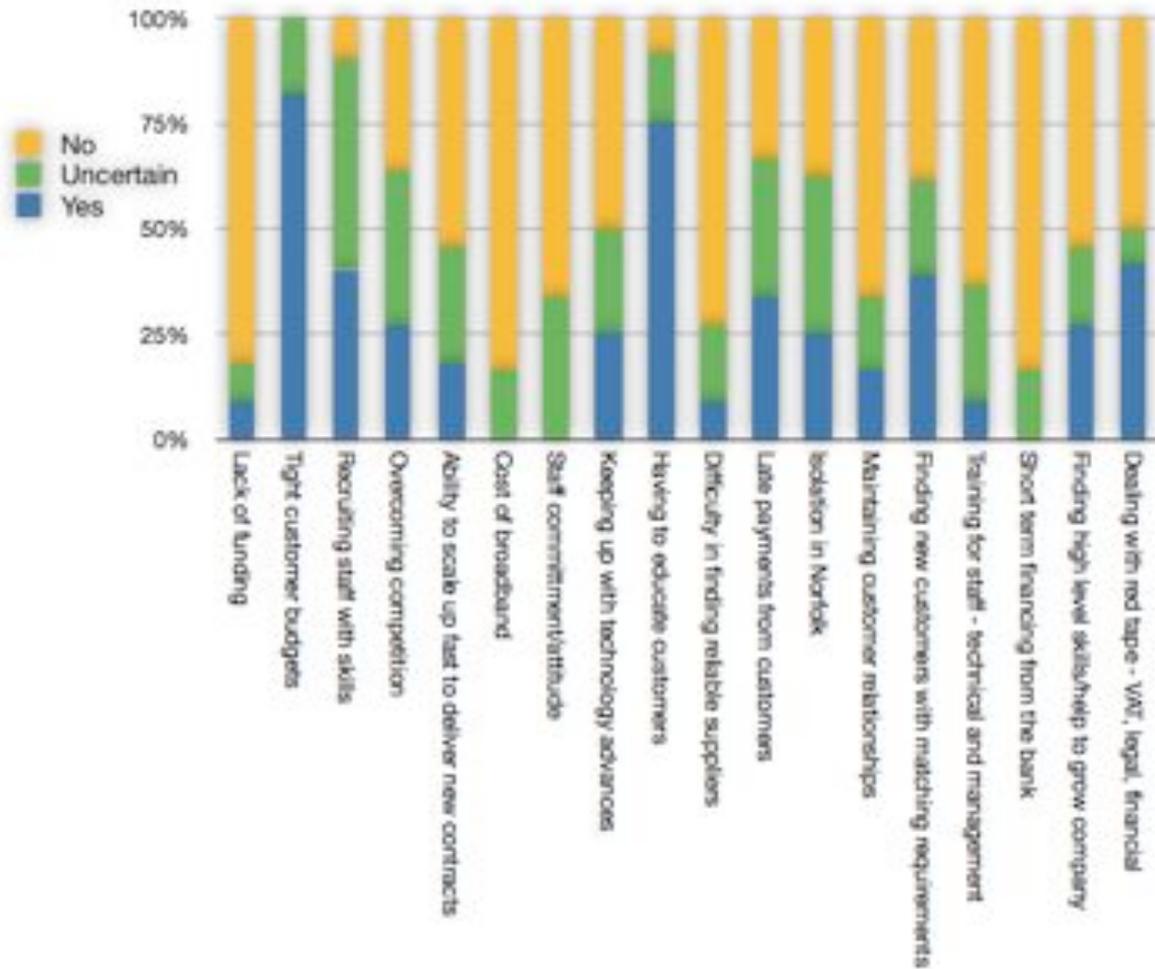
The main investment focus in the East of England region is predicted to be in Marketing and Sales

Using the same business optimism questions with the Norfolk survey participants, we can see that there is much greater future optimism in this sector in the county than nationwide.



Further breaking down the “improve” question, we can see that a majority of the participants believed that there would be some growth, with 40% feeling that the future prospects for their organizations were excellent. A small proportion believed that the market would remain static.

## Business Concerns



For most of the respondents, their major business concerns were the tightening of customer budgets and also having to educate their customers, presumably in the benefits, costs and processes connected with web and software development. As mentioned, in view of the many "access to funding" initiatives now underway in the East of England, it's interesting to note that lack of funding and short-term financing from the bank were of little or no concern to any of those surveyed.

In areas where there was considerable uncertainty include recruiting staff and skills, isolation in Norfolk, overcoming the competition and dealing with staff commitment and attitudes. The survey question were specially constructed in order to ascertain those concerns where people had a degree of uncertainty, since in the main this suggests that these are issues of which they are aware but not dealing with in any positive way.

The two main business issues are intimately concerned with customers: as can be seen from the previous question in the previous section on key success factors, all respondents rated deep understanding of customer needs as a very low priority. Typically, this disconnect indicates a low awareness of marketing strategy, and therefore of professional management skills. It is likely that a programme of Marketing and Management training would be very useful, especially for those smaller companies in a growth phase.

## Company size, growth and jobs

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In total, the desk research found 172 companies, all of whom described themselves as being active in the web development, application development, software services and internet services fields. In all cases, we only entered those companies who stated that their main business<sup>2</sup> was in these sectors, and in doing so, did not log companies such as graphic designers, ad agencies or publishers.

Additionally, there are many larger organisations in the county who have small-to-medium departments entirely focussed on these areas, but they were not included.

Further research reduced the total because of duplication – for example, one location/resource but two or more trading names - or because of a lack of response via phone or email. The final count was 160.

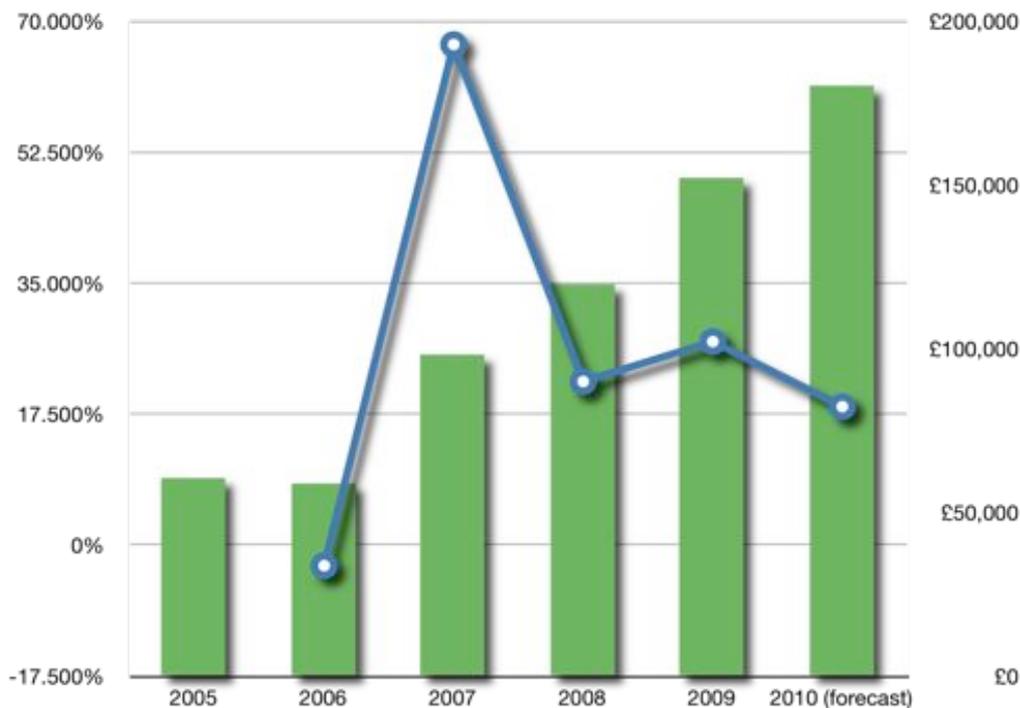
A high proportion – over 18% - of these companies went on to take the online survey, either self-paced or on the phone with a YTKO person entering the answers.

A further 12 attended the focus group, with a higher proportion of larger companies (over 25 employees) at the focus group than responding to the survey.

The survey specifically requested data on company size (revenues and staff), on growth and on recruitment plans.

### Company revenues and growth

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Approximate annual revenue £ and yearly growth Source: survey

<sup>2</sup> The key business sectors of the surveyed firms were gained from web sites, yellow pages ads, listing in relevant specialist directories, and membership of associations/groups.

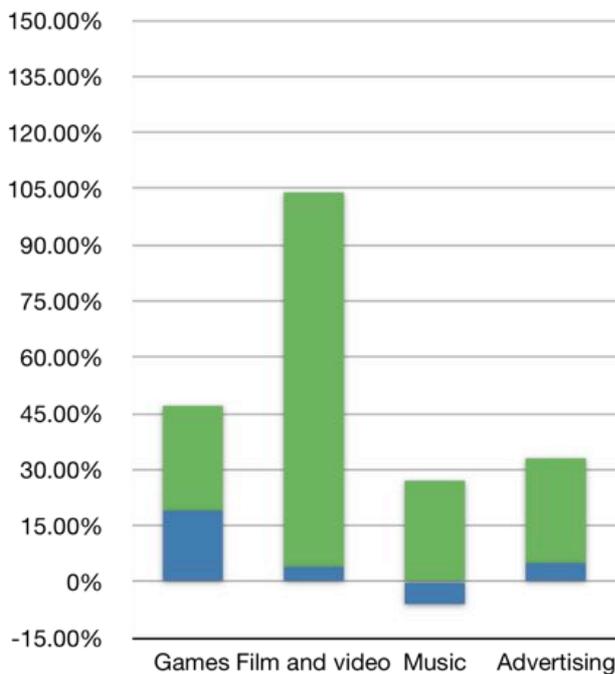
Historical figures for revenues (sales) from local web development and software companies show an average growth rate in excess of 20% year-on-year. A massive 65% growth from 2006 to 2007 is indicative of the strong internet-based economy at this time (2005 – 2008). But even today, the average growth forecast by companies in the sector for 2010 is 18%, well in advance of the CBI's prediction that growth in the first two quarters of 2010 is expected to be 0.1% and 0.3% respectively. Comparing this local digital sector against the creative industries as a whole, the National Endowment for Science, Technology and the Arts (NESTA) estimates that UK creative industries will grow at double the rate of the rest of the UK economy, on average by 4 per cent per year, over 2009-2014.

In the other 'neighbouring' sector, ICT, employment has been flat or increased slightly (by 1%) in most countries analysed by the OECD<sup>3</sup> (e.g. Canada, Germany, Sweden and Chinese Taipei). ICT services jobs declined by 2% in the United Kingdom in 2008-9.

**In conclusion, it is reasonable to assume that the companies in the 'digital' sector represent the 'gazelles' of the creative industries and ICT sectors, working in an industry that has seen yearly growth of over 100% in the late 2000s. Over 55% of all the Norfolk companies surveyed considered themselves as 'growth' firms, with 15% in the start-up phase.**

## Jobs

Another good indicator of the potential of a sector is its growth in jobs, or GVA. GVA in the creative industries in the East of England increased by 8% between 2004 and 2006, according to Creative & Cultural Skills, the Sector Skills Council for Advertising, Crafts, Cultural Heritage, Design, Literature, Music, Performing, and Visual Arts.



However, according to the Annual Business Inquiry (2007) total employment in the creative industries between 2003 and 2007 decreased by 1.8 per cent in the East of England. This is in contrast to other UK regions, which have shown increases in the number of employees working in the creative industries.

Nationally, there has been a ten per cent overall increase in creative industries during this period.

GVA per 'creative industry' employee in the East of England is £28,690 (Cornwall claims £28,540).

*Example yearly growth 2007 - 2008 online (green) and traditional markets (blue) Source: OECD 2009*

<sup>3</sup> OECD, Information, Communications and Consumer Policy Division; Interim report on Employment in the ICT sector, 2009

2.3% of the total Norfolk labour force (217,000 full time, 116,000 part time; 2007) was considered to be in the creative sector in 2007 (ABI- latest figures available). This would equate to around 5000 full-time jobs, and 2668 part-time, totalling over 7,500. This would also equate to a GVA of £320,436,000 as a percentage of total GVA.

Around 29% of the total creative industry sector covers the 'digital' sector, typically design and advertising, but not performing and visual arts, crafts, heritage, or literature. A 'value' of around £96,000,000 could be considered as a total 'digital' sector size. Extrapolating from the companies taking the survey, and those 170 companies we have found to date, we can arrive at:

### Quick GVA calculation for the Norfolk Digital Sector

In order to give a comparison between the Norfolk average GVA and the potential GVA delivered via this sector, we have attempted a rough calculation based on the survey results.

Specifically,  $GVA = (\text{Net profit (before tax)} + \text{Depreciation} + \text{Payroll}) / (\text{No of Employees})$ .

Understanding the nature of the digital business, we can confidently assume that there is little or no stock, and that depreciation is a small amount for firms with few large items of capital equipment.

Other expenses would be rent and rates – relatively low in Norfolk, overheads such as power, and transport and professional fees. The greater proportion of the businesses' costs will therefore be payroll, and a small amount of expenses.

Working back from this, we have estimated that the revenues can be allocated to:

Payroll	70%
Expenses	15%
Profit	15%

Our GVA is therefore calculated as 85% of the revenues (turnover or sales) divided by the number of staff. This typically calculates as £25,425 for 2008, and is 153% greater than the average Norfolk per head GVA.

However, it is lower than the East of England Creative Industries sector GVA of £28,690, but this does include many firms near to London and in Cambridge (Hertfordshire and Essex also have the highest percentage share of employees working in the creative industries in the East of England).

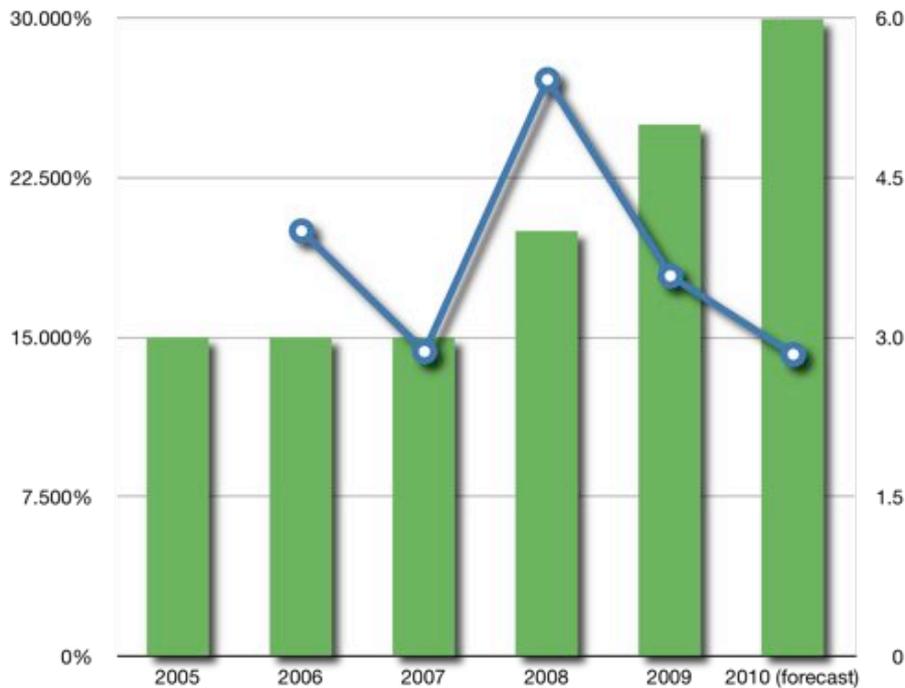
Regional GVA East of England 2008	£120,524,000,000
GVA Norfolk 2008	£13,932,000,000 <sup>4</sup>
GVA Norfolk per head 2008	£16,573
Approx GVA per head 'digital' 2008	£25,425

<sup>4</sup> ONS, *Headline Gross Value Added (GVA) by NUTS3 area, 2008*

Looking now at the growth in employment, this 'shadows' the revenue growth: 2007 to 2008 represents the greatest growth in employment, compared with 2006 -2007 for sales. Again, forecasts for 2010 are optimistic, at 15%, but down from the staff increases of 26% experienced in 2008 and 18% in 2009.

The average size of the company is also increasing, and typically, firms are doubling from 2007 to 2010. The surveyed companies ranged in size from two to 17 employees. The largest company at the focus group had over 40 employees. 26% were sole traders or freelancers.

This is a different picture to the wider creative industries sector, in the East of England, where 37% are sole traders/self employed<sup>5</sup>.

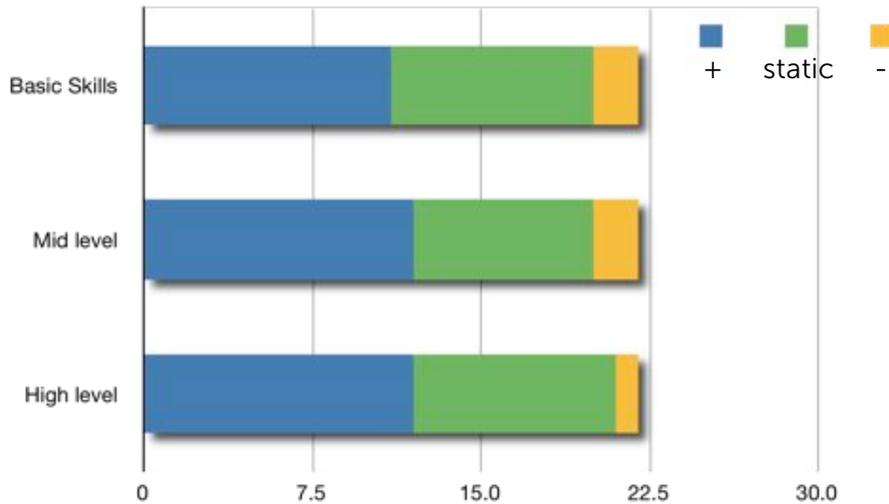


Employee size and growth in staff averages 2005 -2010 (forecast) Source: survey

## Recruitment

Although the firms surveyed all forecast growth, there were some problems flagged when they were recruiting staff.

<sup>5</sup> Creative & Cultural Skills: the Sector Skills Council for Advertising, Crafts, Cultural Heritage, Design, Literature, Music, Performing, and Visual Arts; East of England Impact and Footprint 2008-2009



*Outlook for technical employment Source: survey*

High level technical skills were most in demand, with the greater majority seeing an increase at all levels for technically-skilled staff.

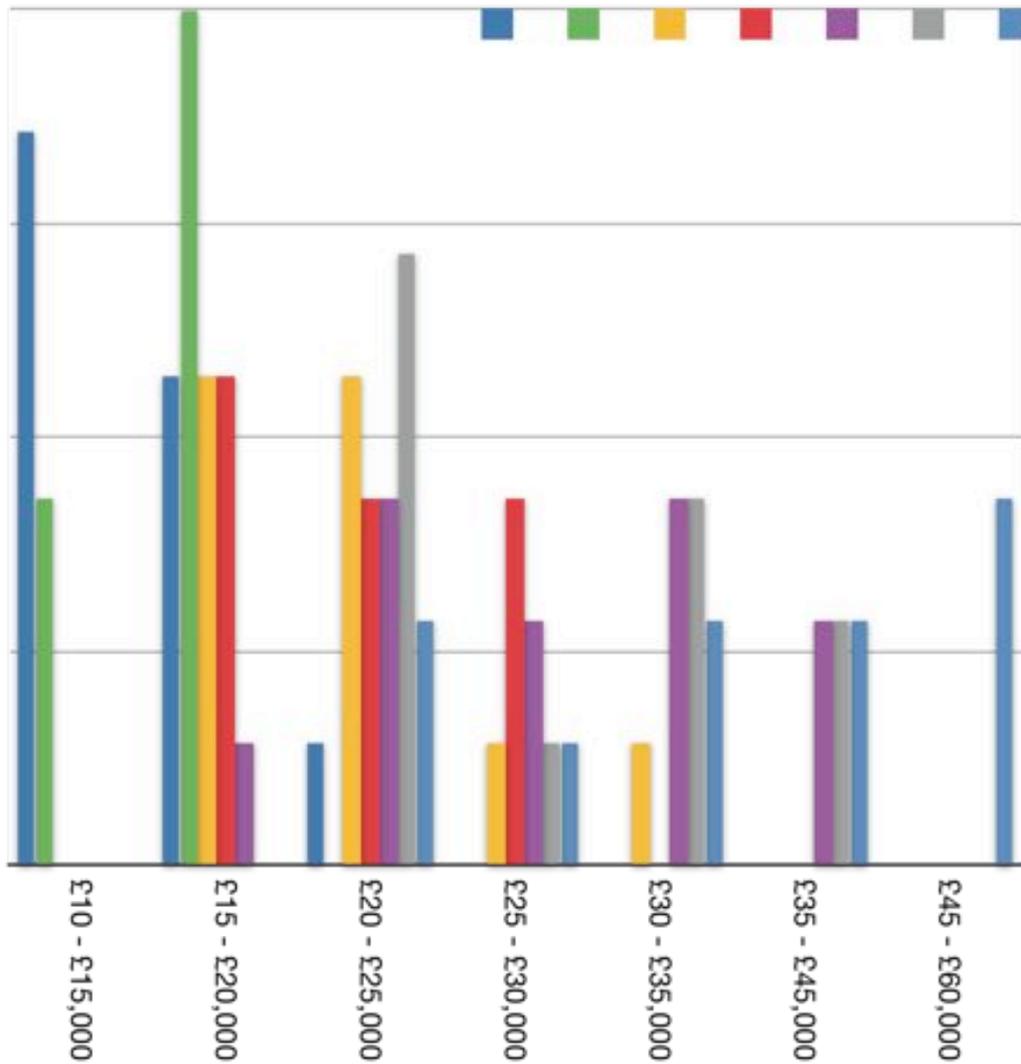
The most pressing problems were the cost of new staff, and of effective staff retention. Another consideration was that finding good quality staff simply took too long: this issue also relates to the next most pressing, that the local recruitment pool was seen as too small to support the firms' ambitions.

*Staff recruitment issues Source: survey*

**Salary levels**

To arrive at typical salary levels, the survey asked respondents to match a range of salaries to a range of jobs - technical, client-facing, and management. Some respondents did not give a salary for each job, but trends are clear in the combined answers:

Job	Typical salary	Lowest	Highest
Junior technical staff	£15,000	£12,500	£22,500
Junior client facing staff	£16,000	£12,500	£17,500
Middle technical staff	£22,000	£17,500	£32,000
Middle client facing staff	£22,000	£17,500	£27,500
Senior technical staff	£28,800	£17,500	£40,000
Senior client facing staff	£28,800	£22,500	£40,000
Senior management	£37,500	£22,500	£52,500



In addition, we also used PayScale to determine typical technical salaries payable in the county:

DEGREE	SALARY
Bachelor of Science (BS/BSc/SB), Computer Science (CS) (17)	£31,982
Master of Science (MS/MSc) (4)	£37,974
Bachelor of Engineering (BE/BEng), Computer Science (3)	£44,000
Master of Computer Applications (MCA) (2)	£38,500
Master of Science (MS/MSc), Computer Science (2)	£37,000
Bachelor of Science (BS/BSc/SB) (2)	£30,000
Bachelor of Engineering (BE/BEng) (2)	£32,700

Currency: GBP | Updated: 02/28/2010 | Individuals Reporting: 32

And to provide typical local profiles:

Web Developer		
Years In Field/Career Salary (Annual)	12	£25,000

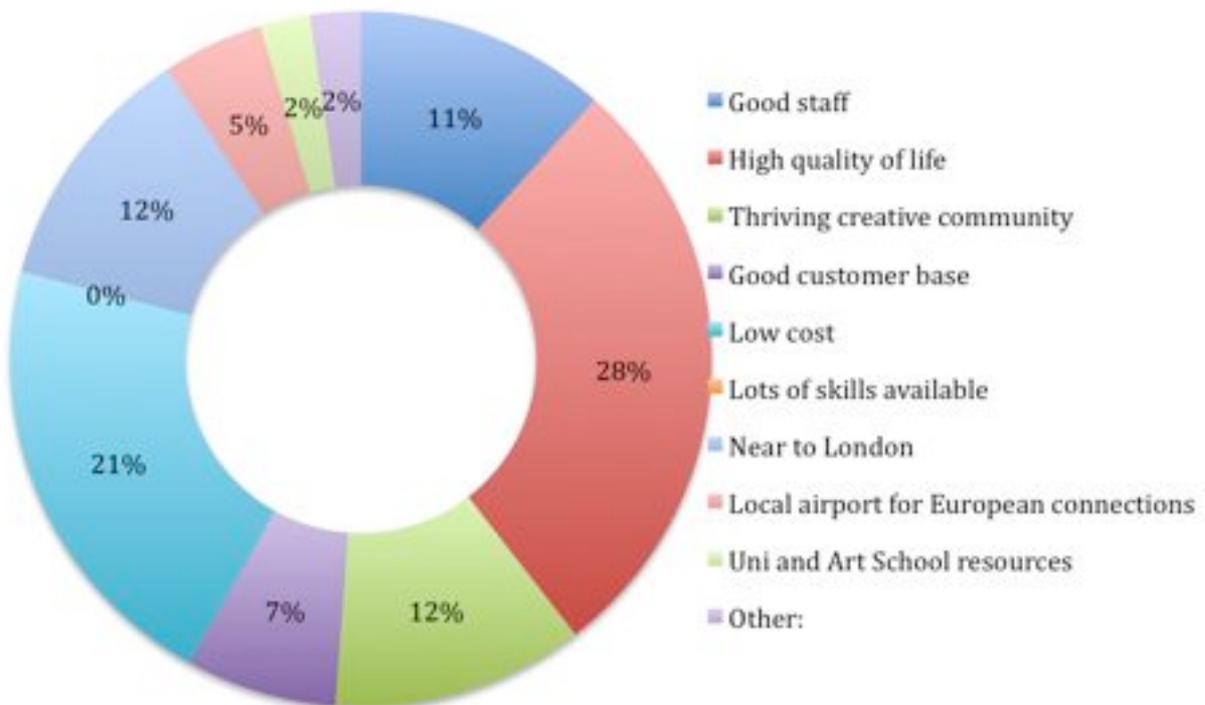
More Details: Job Location	England: Norfolk, United Kingdom	
Skill/Specialty	HTML, Web Development, SQL, JavaScript, SQL Server (Microsoft), e- Commerce, Linux	
Number Supervised	3	
Reports To	Business Development Director	
Employer Type	Company	
Employer's Product/Business Years with Employer	Web Development	1
Number of Employees	12	
Commute Time	20	
Salary Type	Standard Full-Time	40+ Hours Per Week
Vacation Weeks	4	
Health Benefit	None	

<b>Web Developer</b>		
Years In Field/Career Salary (Annual)	3	£28,000
More Details: Job Location	England: Norfolk, United Kingdom	
Skill/Specialty	HTML, Web Development, SQL, JavaScript, e-Commerce, UNIX, Linux	Certified Professional Engineer (PE)
Number Supervised	3	
Reports To	Managing Director	
Employer Type	Sales & Marketing Company	
Employer's Product/Business Years with Employer	Software Development	1
Number of Employees	15	
Commute Time	60	
Salary Type	Standard Full-Time 40+ Hours Per Week	
Vacation Weeks	4	
Health Benefit	Vision	

## Benefits of Norfolk

Any issues of isolation in Norfolk were evenly split between those who felt there was a problem in, those who didn't, and those who are uncertain.

One survey question specifically requested respondents to rate the benefits of being based in the county. The high quality of life is rated in top position by most, with the low cost of doing business a close second. A thriving creative community is felt to be important by just 12%, the same as those who regarded Norfolk as being convenient for London, and no respondents felt that the skills base was an important factor.



Following on from this question, we asked whether companies found it relatively easy to do business here in the East of England, in London and the south-east, throughout the UK, and in Europe and worldwide. The spider graph below plots whether respondents were positive, uncertain or negative.

By correlating the three types of response, it's possible to determine a confidence factor.

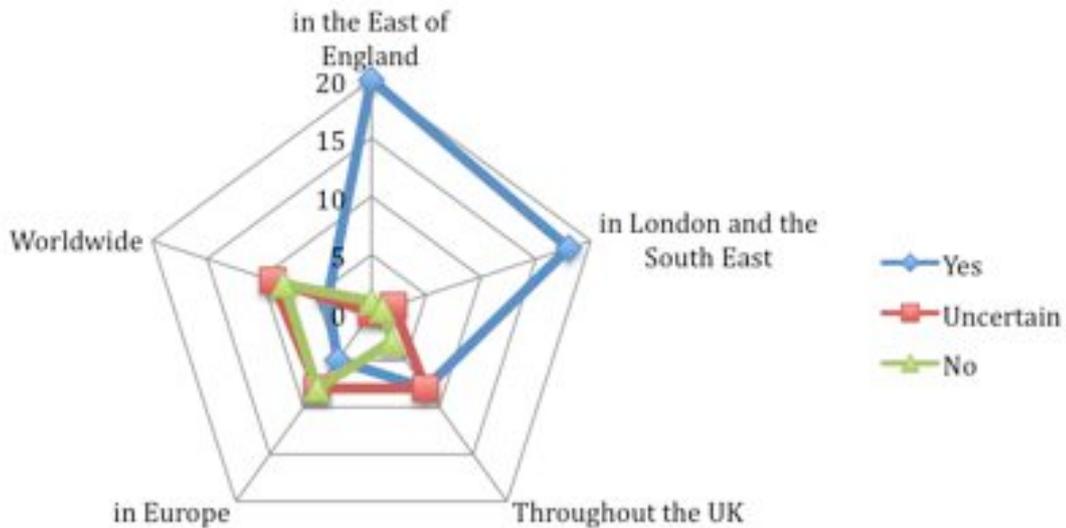
As is clear, companies are equally positive about working locally and throughout the south-east, but there is a very sharp drop-off when looking to work further afield.

However, they also suggest that people are equally uncertain and negative about working in Europe and worldwide, which may suggest that there are opportunities for educating them in how to engage with overseas markets.

In the survey, and in the focus group, there seems to be a degree of interest in European and international markets, and but little or no knowledge of how to address these opportunities. This may be because of language difficulties, or of a concentration on "easy" sales here in the UK.

It's clear to see that there are immediate opportunities to extend sales efforts throughout the UK and in Europe – but maybe with the active help of export support organisations.

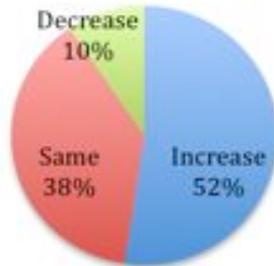
The answers to this question could be seen as displaying a lack of ambition to go beyond the East of England and the south-east: in our opinion, further work would be needed to determine whether there was a real appetite to extend the sales territories before putting any support programmes into action to encourage particularly overseas work.



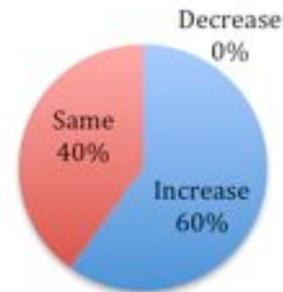
An additional question asked whether companies were actively selling their services to the local financial services sector. The great majority were not selling at all or very little, with only one respondent having a majority of work in this sector. They also commented that they were probably too dependent on this single sector.

When asked whether they would like to engage with the sector locally, over one third said that they would be interested in pitching for work. Most of these companies felt that they were well positioned to impress local clients with over 10 years experience in relevant work and/or more than three client case histories that would be suitable to demonstrate their skills to the financial sector.

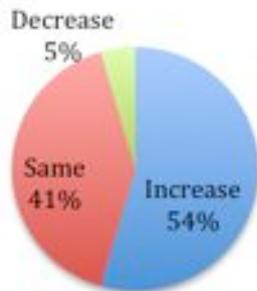
**Basic skills (HTML, Dreamweaver etc)**



**Mid level skills (Server-side coding, database design, simple e-commerce)**



**Higher level dev skills (AJAX, Frameworks, enterprise-level e-commerce and security)**

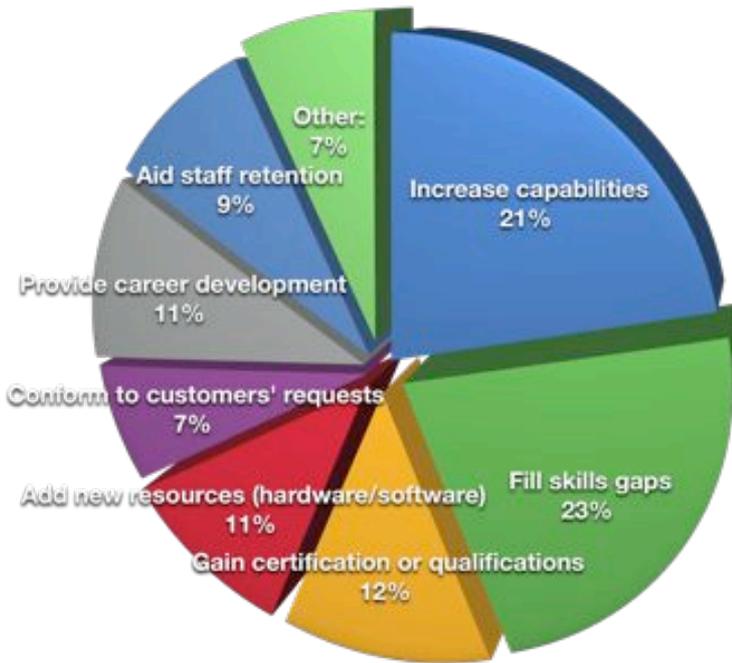


We asked all the respondents to give us their views on the outlook for skills requirements over the next few years. The skill sets were split into three different types, Basic skills that typically would be learned at college or self taught: mid-level skills that would require specialist training – again possibly at college – or through technical training establishments: and high-level development skills that not only would need to be delivered through specialist trainers will also benefit from interaction with special interest groups, nationally and internationally.

In general, there was a match between all three levels of skills: 50 to 60% of respondents saw either an increase, and around 40% felt that things would stay the same. However 10% felt that there would be a decrease in the requirement for the basic skills.

It is our belief that, especially with very small organisations, there is little or no planning or strategy for training and skills and that this essentially is a reactive process. We would suggest that there is a need for further investigation of the likely requirements for skills in the sector, and that the sample size needs to be much larger.

Asked for what purpose they undertook training, respondents underlined our suspicion that in the main this was reactive, to fill skills gaps. 21% suggested that they undertook training to increase their capabilities, and a further 12% to gain certification or qualifications. Career development and staff retention both were considerations of only around 10% of those asked.



We also asked whether people would be prepared to travel for good training and it was surprising to note that a high number were not prepared to travel even to regional courses – over 20 miles. Many were not prepared to travel nationally. The specialist courses were more attractive - the majority would be prepared to travel nationally – over 100 miles. There was a high preference for courses not longer than one day and around a quarter would be prepared to attend a course either part-time or full-time for several sessions. There was a relatively high proportion of ‘no’ answers to these training questions.

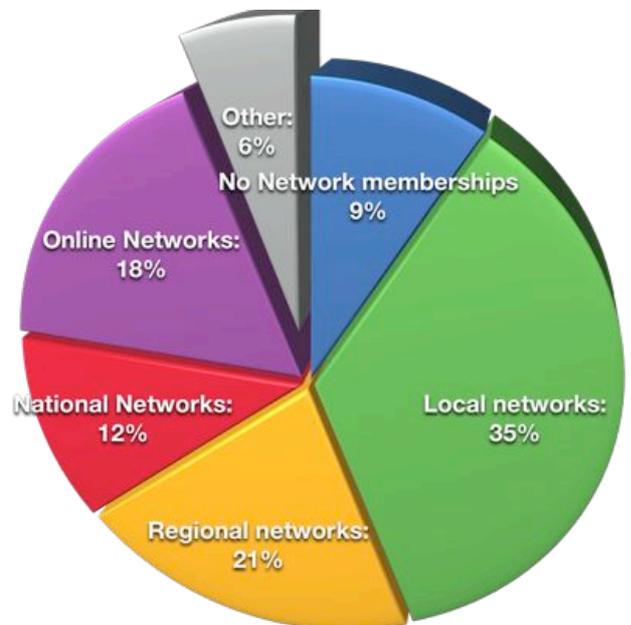
Around a third specifically stated that they would be prepared to travel to London for training, and a slightly larger number would specifically make time for themselves or colleagues to attend training courses. Just over one quarter would have no problem paying the “going rate” which suggests that there is some price sensitivity to training.

**Need for a network/community**

In order to determine the need for a group or network to support the “digital” sector in Norfolk, will be organised and structured focus group with senior decision-makers from representative companies. There is a full write up of this focus group elsewhere in this report, as well as detailed notes on other networks and support organisations in Brighton, Cornwall, and Yorkshire.

We initially investigated the network situation in Cambridge, but felt there was too great a difference between the highly technological focus of Cambridge groups such as Cambridge Wireless, which has no focus at all on company growth or management, for example, but concentrates on technology and application areas.

In the survey, one question asked whether companies were actively engaged in networking. Only 9% of the companies polled belonged to no network at all. A very high 35% belong to local



networks, 20% to some form of regional network, and 30% to national or international networks with 3/5 of these being members of online groups.

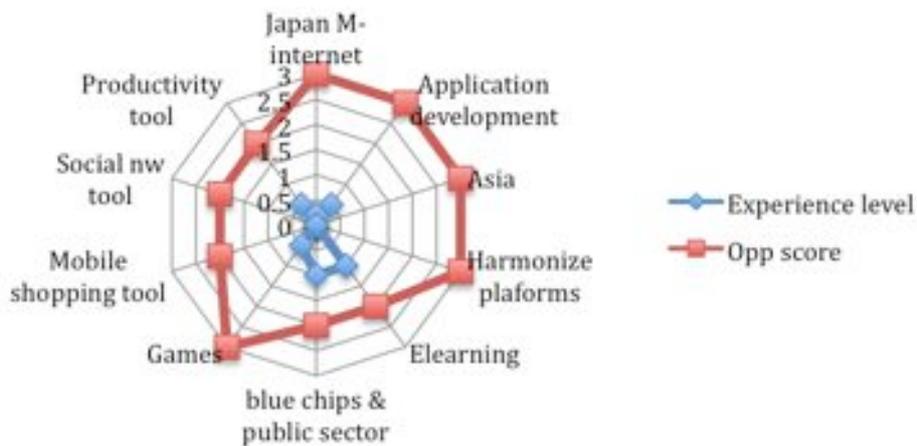
From survey responses, and from the discussions in the focus group all the companies in this sector understand and subscribe to the values of not only belonging to a network, but also being active within that network. Of course, they are all comfortable and familiar with online working but the high preponderance of "face-to-face" networks that they belong to, and the very specific comments on the focus group that meeting and engaging with people on a one-to-one basis is very important for them to develop their businesses, suggest that there is a very important role for traditional networking.

## Matching skills to opportunities

As a final exercise, we have taken several of the main areas of operation for web development and technology applications, and plotted the skills and typical expertise required to effectively carry out the work. Then, based on the survey questions, we have plotted the local Norfolk skill sets for each of the areas of operation. Areas where Norfolk would be particularly suited, either to expand into European or international markets, or to promote nationally, are those where the two plots coincide.

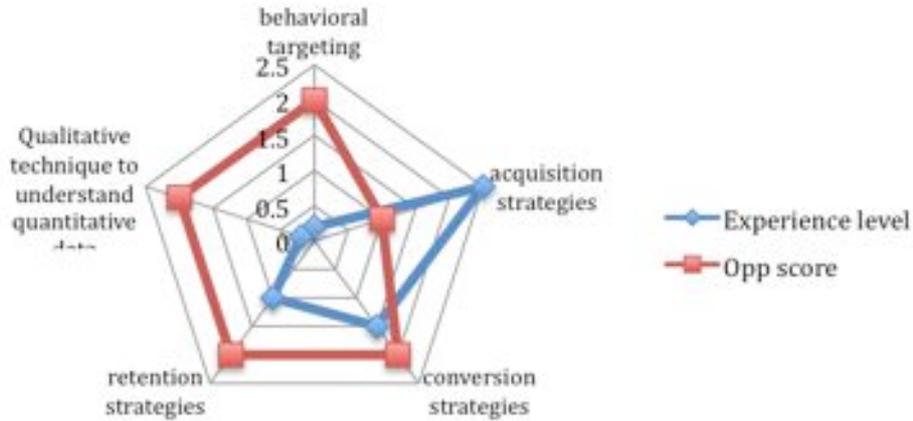
As can be seen from the plots, web and digital consultancy, and Internet marketing, in order to “best fits” for local companies. Interestingly, when asked where they saw the greatest expansion opportunities for the future, the survey respondents did not place either of these two areas in their “favourites” list. Again, this suggests that development of experience and skills, and especially the promotion of relevant case histories, would be key to ensure that there is a better fit between the reality and the perceptions.

### Web usability & GUIs



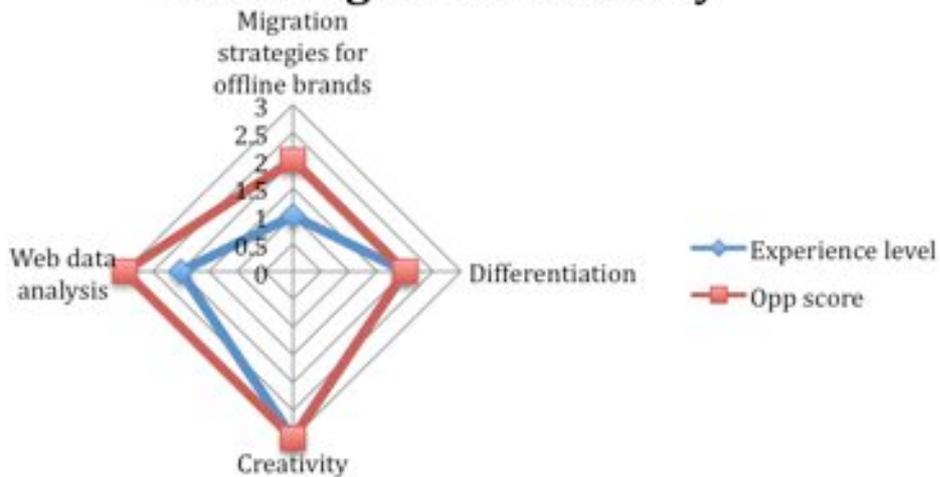
Although Foolproof in Norwich is one of the top usability companies in the UK, there does not seem to be the same level of skills across the board in the Norfolk organisations. It should also be noted that at the focus group foolproof were recruiting at a greater rate in London than in Norwich, and that they were able to recruit staff with better and more up-to-date skills in London.

## User research



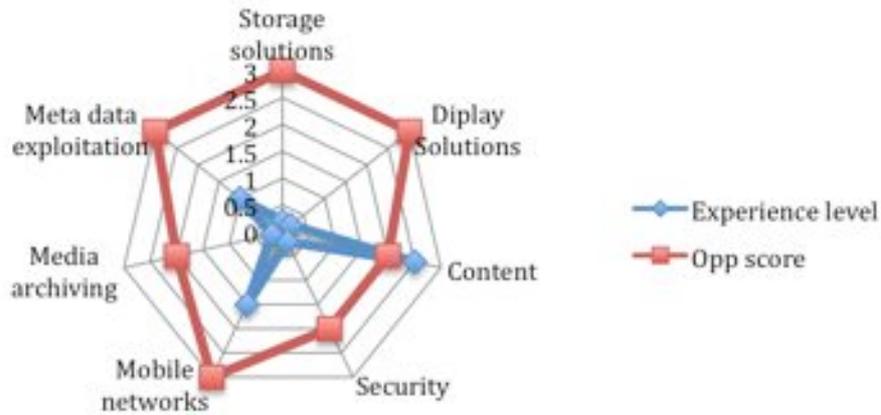
Again, in the focus group, there was a general consensus that there was a shortage of marketing strategy skills within the digital community in Norfolk, and that the major competition for this strategy consulting was from traditional marketing and ad agencies. This "skills gap" is underlined by the mapping for the user research area: there is a great deal of experience in acquisition strategies – that is acquiring users for websites -- but far less in behavioural techniques and traditional market research.

## Web & digital consultancy



As previously mentioned, many of the web consultancies in the sub-region are very small and have majored in search engine optimisation and search engine marketing. There are gaps in their experience in strategy and in heavyweight data analysis, which at the moment would be covered by skills usually seen in traditional ad agencies. However – the fit between what is needed by clients for good quality web and digital consultancy and the local expertise is good, and relatively easy to improve.

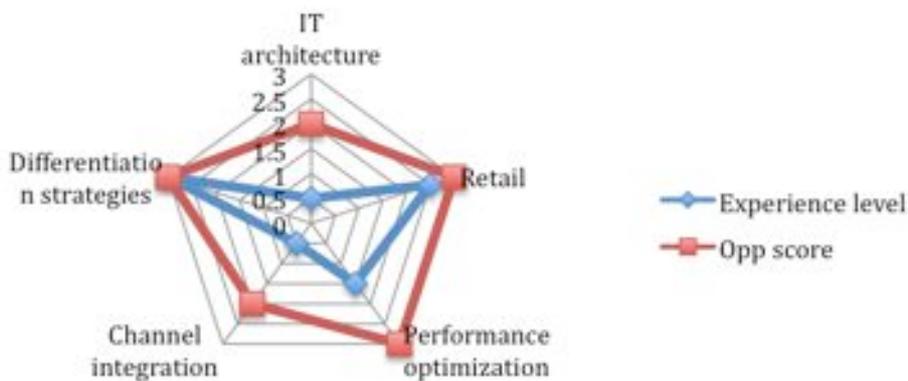
## Multimedia



In the earlier section of this report, we mentioned that the multimedia section encompasses a wide range of different and changing elements, some of which we have plotted in the spider graph above. Generally, they can be seen in that there are few skills in Norfolk for enterprise level software development – as evidenced above by the lack of experience for example in storage solutions, media archiving and display solutions. It’s surprising that there is this like locally since the printing industry has pioneered IT solutions in these three areas, and is a traditional Norfolk industry. It is possible that there are several more specialist organisations that we have not been able to reach which could provide expertise in these areas.

Norfolk has been traditionally very strong in creative content and this is reflected in a high score for experience in the graph above.

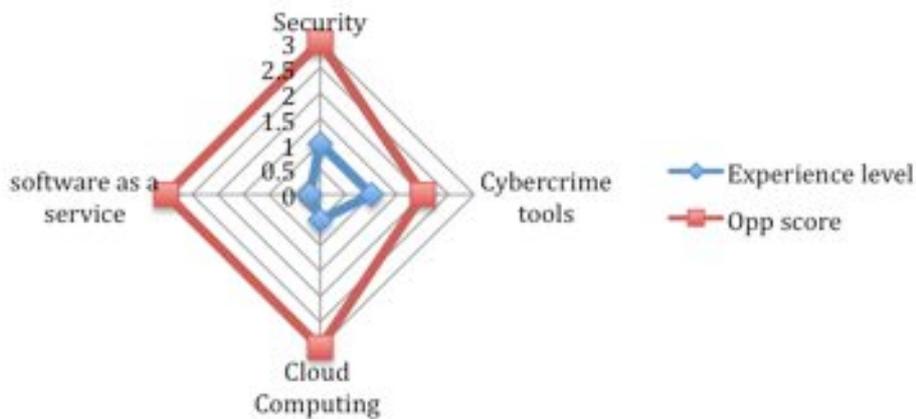
## e-commerce



E-commerce represents one of the major opportunities for web development work and also in the future for mobile applications. Again, we can see that the more heavily technical requirements such as for IT architecture and channel integration – working with other routes

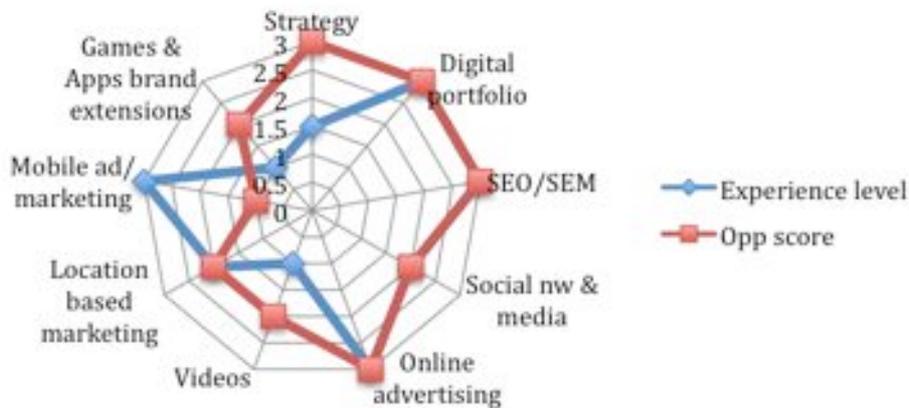
to market such as “bricks and mortar” stores, catalogue selling and off the page advertising – are not in abundance in the county. But there is good experience of e-commerce for retail operations, even though they may only be local smaller organisations.

## Software development



It is probably over ambitious to propose that software development in Norfolk is ready to be promoted nationally or internationally: there seems to be some experience in security applications, but these are probably restricted to passwords and public key applications. Software as a service is a very fast-growing application – providing web based applications that previously would have run on local area networks or directly on desktop machines – but which requires the developing company also to promote and support the application to a user base. There are similarities between software as a service and cloud computing since they both provide services directly via the Internet to the user’s machine, but cloud computing requires greater investment and technical skills, which are unlikely to be found in Norfolk.

## Internet marketing



Finally, we have plotted experience against opportunity for a new range of areas grouped under Internet marketing. Again, there is a low score on strategy, as already discussed. There is also a low score for video, but this may be able to be increased through close collaboration and cooperation with EPIC and with companies working with them. There is a high experience score for mobile advertising and marketing mainly due to the high quality of work being delivered by Pocket Places and Proxama, which has tended to skew the rating.

We have been unable to find any games developers in the county, although we do know of one company which has developed into a training software company from a games background (Maverick Developments).

Search engine optimisation and search engine marketing providers are experienced and in abundance, as are those doing online advertising. Social networking and media is also well provided for, although it remains difficult to see how a profitable business model can be developed through supplying these types of services. All in all, it is possible to bring together a very effective "digital portfolio" in Norfolk and therefore this has scored highly. In fact, because of the wide range of companies, a broad client base, and a mix of creatively led companies and technically led companies, there is excellent justification for accelerating the continued growth of these, with high-quality support for marketing, management, and for skills.

## The focus group

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On 16 March at the Cube at the Forum in Norwich, a group of invited Web and software development people were brought together by the Norfolk Network. The attendees were without exception high-level and many were owners, directors, or founders of their companies. The companies themselves were specifically chosen to represent the "leading edge" of Norfolk's web, mobile and ICT sector.

Attendees were

- Rob Alton – Rob Alton and Associates. They are e-learning consultants and have only recently been established in Norfolk.
- Duncan Cardwell – P1 Technology. P1 started as a consultancy but are now selling complete innovative solutions and have recently started to incorporate hardware into their offering.
- Neil Garner – Proxama. The company is formed by bringing together to other organisations, and mainly works on mobile applications including near field communications and payment through mobile phones.
- Richard Garnett – Centre Solutions. Richard is a management consultant who was a senior ICT person with Aviva.
- Joe Gass – Further. They are online marketing company who have an established over four years. 60% of their work is on website creation and development, and 40% on online marketing.
- Jake Hithersay – ipatter. They are developing an innovative business to business and business to consumer platform similar to Twitter which at the moment is web based. New skills would be needed to help develop for the mobile market.
- Mark Oakden – Pocket Places. They see themselves more as publishers than as application developers with a 50/50 split between technology development and content creation. They focus on mobile devices rather than web.
- Marc Oldman – Foolproof. The company is one of the largest usability consultancies in the UK and at present is split between London and Norwich because of clients' demands and of skill sets.
- John Shannon – Silvertap. An online marketing company specialising in financial services and gambling, they have been established in five years and plan to develop mobile applications but have yet to find the right skills.
- John Smith – The Forum Trust. John worked on the Norfolk Telematics development project in the late 1990s which attracted investment and attention to ICT in Norfolk.
- Nick Thompson – Soup. A well-established organisation, they are digital marketers working with major clients such as Sky TV and Innocent drinks to develop integrated online advertising.
- James Thomson – Soak. A full-service digital agency offering web development design and marketing, they are looking to expand into mobile application development if they can recruit the right skills.
- Rod Woods – Empressa. A Web software and development company, they have been active in creative networking in Norfolk, from which they gained benefit.

- Peter White of YTKO acted as a facilitator for the focus group.

## **Growth and development**

There were felt to be skills gaps, but only in technology and higher level development. Companies that were providing you creative services, especially content, had little or no problem finding the right creative staff. Some had subcontracted work in order to grow, but did not find it to be successful, and in one case, it proved to be detrimental. Most had implemented a strategy - one persistently called it a culture - not only to develop new talent within their organisations, but also to take a more "relaxed" attitude to the recruitment process and find people who could be grown in terms of skills and abilities.

For one company, recruiting skilled technologists in Norwich had proven very difficult, and as a result they were now adding these skills to their London operation, where the pool of talent was not only greater but already trained in leading edge technologies. There was a concern that the Norwich operation would in some respect be left behind.

In nearly all cases, companies were pitching for higher value work, and adding specialist skills. They were building on their existing work, especially the work they had done for national or international brands, and also attempting to move further up the supply chain to deal directly with customers.

## **The Norwich and Norfolk brand – location and perception**

The participants were divided as to whether the Norfolk location was advantageous when they marketed their organisations. One felt that having a London base was essential to their continued growth and position within the sector. Another smaller organisation had clients who are very happy that they were dealing with a Norwich-based company. But many felt that there was a sense of arrogance both in London- and Cambridge-based companies which relegated Norfolk organisations to a second division. Two companies mentioned that the Norfolk police outsourced their quarter of £1 million website to a London organisation while stating that "they didn't think the skill set was available in Norfolk". Another mentioned that the feedback they received after having unsuccessfully bid for a tender was that all the companies that displayed a full set of capabilities were based in London. They had equal attributes but the Norfolk base was not considered a positive element.

It was felt there was value in promoting to local businesses and ensuring that decision-makers were aware of the breadth of ability available in Norfolk. UKTI was also mentioned as a useful resource for increasing brand perception further afield.

Locally, there appears to be a perception among all levels of clients that high level software development skills are not available. There was equal concern that there was a similar lack of understanding of the depth of creative talent in the county.

Transport links were seen as important: Norwich airport was seen as an underutilised resource. Participants were all interested in investigating the opportunities for European and international work, but would need clear indications as to the potential level of success that could achieve.

## **Skills and resources**

As already mentioned, high-level and new technology skills were in short supply, but many organisations were willing to develop these skills in-house, and support their team's career development. There was a general feeling that, although there was a possibility that newly

trained staff might leave for higher paid Cambridge- or London-based jobs, this was definitely a risk worth taking.

There was some involvement with local higher and further education establishments, but the only institution named by any of the participants was the Norwich University College of the arts. In some cases, there was a feeling that local training establishments were not providing courses in the latest tools or approaches.

### **Networks and support groups**

Mention was made of the creative industries support group, particularly creative Norfolk, but there was no knowledge of any technical support groups specific to the county. There were no local Linux or PHP groups, for example, and it was felt that the nearest groups in Cambridge did not have any motivation to extend their membership to the county.

One participant suggested that there should be support from Microsoft, and another commented that there were many Microsoft accredited professionals in the county.

There was general agreement that if any technically oriented support group was to be created, then the most useful would be one concentrating on mobile application development. The Cambridge Wireless network was seen as being very valuable, but not convenient or accessible to those wishing to enter the mobile sector for the first time.

Creative Norfolk was considered to be useful, but required a degree of support from the members that was not forthcoming.

All agreed that any community needed to be set up and run over a longer term, and provide a degree of service to its members, rather than relying on the members to self manage, since the first priority of the members was obviously to successfully run and grow their own companies.

### **Sales and marketing**

Competition was seen as coming from traditional advertising and marketing agencies which were extending their technical abilities and knowledge of the digital sector. Some delegates mentioned that a shortage of high-level marketing strategy skills within their organisations, or easily available locally, was affecting their ability to provide full-service solutions to customers. This convergence - the web development space moving towards a full-service advertising and marketing, and traditional advertising and marketing to the digital sector - was a concern for several of the participants.

Collaborative marketing scene is useful, but it was felt that the "Normal for Norfolk" campaign, although well executed and promoted, failed to engage since the tagline was really only well-known - in its original derogatory sense - within the county. The county has to look more outwardly.

Generally it was felt there is an inherent lack of PR to promote the quality of the work that is really being done by Norfolk companies in the web and digital space. Creative Norfolk was again mentioned as an example of how it was useful to get people working together but since they had their own businesses to run, the required level of PR and activity did not happen. Any networking organisation needs to be both proactive and well-organised (see above).

It was suggested that initially members of any potential network it should spend time and effort getting to know each other's capabilities, specialisations, and achievements. This not only would lead to potential collaborations, but also two joint sales and marketing activities, and a potential showcase. Creating a "library" of particular successes in the digital sector in

Norfolk was considered to be generally very useful, and a good tool to raise both the overall perception of the county's skills and capabilities, and also of individual companies' excellence.

### **Web, software, mobile - sector or subsector?**

There was a lively discussion about the position and potential of Norfolk as a creative industries leader. Generally, there was agreement that trying to position Norfolk against London for creativity was implausible, and that other creative centres such as Manchester would also provide difficult competition to the county. However, the suggestion that Norfolk positioned and promoted as a digital centre was a sensible move gained full support.

The broad spread of creative industries was felt to be too wide to attract specific new business to the county, but operating under a digital banner not only worked well with customer needs, but also with what was locally on offer, of demonstrably high quality, and differentiated from other clusters. Focusing to some extent on mobile would also strengthen the skills and experience of the existing companies.

# Skills for Web Development & Technology - Supply Side Analysis

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## Introduction

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This sub sector of the digital economy can be divided into two categories to determine the skills types needed and used:

- the first category is concerned with connectivity and technical support: it includes networking infrastructures; hosting options and technology platforms.
- The second category is characterised by back end programming and front end design. The term “back end” refers to programming hidden from view; whilst “front end” refers to web development work which affects the look of a website.

Of course, this division is simple, but it enables us to quickly develop a survey methodology to find and catalogue all the relevant courses available locally, regionally and nationally, and to relate these to the survey questions asked separately.

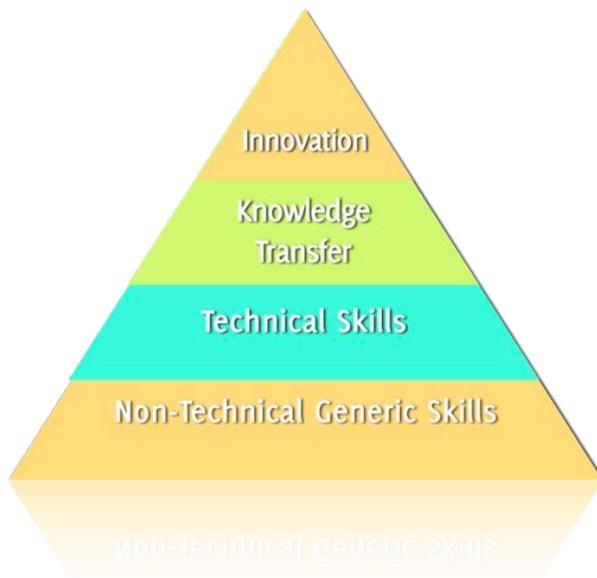
*This part of the report has been conducted by Andrew Wheeler, of Trainagain.*

## Skills Gaps – An Inclusive Approach

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Skills gaps in the web development and technology sector can be viewed from several angles.

Firstly, we need to know if there are technical skills gaps impeding the growth of companies; secondly there is the issue of generic skills gaps – non-technical in nature but still essential to company growth.



These might include: management and marketing skills; oral communication; presentation and writing skills.

In addition to these two categories (technical and generic), there is the question of “innovation/collaboration” (particularly relevant to networks/communities of technology-based firms):

- To what extent are companies being held back by being too inward?
- How might the universities provide an environment where businesses feel comfortable to explore new ideas together?

This may not be because of an actual “skills” gap, but it is an important part of the skills equation – how HE and business can work closer together. Working with HE need not necessarily be about pure innovation, it could also be about knowledge transfer – universities helping businesses through graduate placement schemes and other knowledge and technology transfer initiatives.

The diagram above shows these four different ways of analysing the skills economy for the web development and technology sector.

## National Organisations

e-Skills UK is responsible for the ICT, telecommunications and contact centre sectors. In addition, this SSC has responsibility across the Skills for Business network for the cross-cutting application of ICT as a user and management skill and as the technical underpinning of an increasing range of business and services;

Skillset is responsible for the Audio-Visual industries which includes not only film, TV and radio but also interactive media. The Skillset interactive media focus is principally on creators who produce interactive products for the web and internet, interactive television, computer games, mobile devices or offline multimedia. Skillset has also responsibility for the development of vital skills that will underpin the capability of future generations to participate in the digital knowledge economy - notably creativity and media literacy. Along with core ICT skills, this underpins the universal digital entitlement recognised in this Action Plan.

There is clearly a requirement upon e-Skills UK and Skillset to work with regional partners in the increasingly important areas of skills, employment and citizenship that fall in the intersection between ICT and interactive media. These include:

- web design and development;
- convergent and cross platform digital media and services;
- the digital user and literacy skills required by school children and by adult citizens to maximise the potential of the digital realm.

The University of East Anglia offers a one stop service for businesses through their Research, Enterprise & Engagement service. Options include working with academics & staff; working with students; accessing innovations & ideas; using the university's facilities; training & development and research & funding.

UEA's EVOLVE project has been set up to "support individuals and SMEs in Norfolk through the current economic downturn and to help them into a stronger position as the economy recovers. The Norfolk Network has been engaged to help with the industry outreach activities.

Both these UEA services are worth dwelling on. They could provide SMEs from the web development and technology sector with a valuable local learning and collaboration resource which could greatly benefit their long term growth.

The table on the next page explores the skills economy for web-technology specialists.

Three skills types are set out: transient skills are especially relevant to people working in the sector and for those moving into the sector (perhaps adding programming skills to their existing design capabilities portfolio); "enduring" skills are mostly relevant for students before they embark on an industry career.

They refer to specialist qualifications which go towards meeting industry standards. These might be gained at under-graduate or post-graduate levels; transferable skills are work related and transferable between sectors. Examples of these types of skills are customer care; finance; marketing; management; and leadership.

Skills Type	Descriptor	Moving into sector	Currently in sector	Moving "beyond" the sector	Pre-work
Transient Specialist	Typically short courses meeting immediate technical and professional needs - perhaps driven by a project requirement or a product release. Transient specialist skills are continually evolving and need frequent updating.	Yes - essential potentially makes the difference between getting a job or not.	Yes - essential - easy to fall behind in this sector.		Some of these specialist skills will be picked up informally (through social networks, file/programme sharing); but likely to need an instructors course to plug gaps in knowledge.
Enduring Specialist	These underpin the transient skills, providing the foundation for entrants and their long-term career development. They range from creative practice (e.g. storyboarding, design, drawing, documentation) to quality control, programming, process (e.g. configuration management, rights management). Teaching of underlying principles and practices can involve the tools and technologies of the moment - for example, using C++ to teach programming or Microsoft Office to teach workplace user skills.	Preferably, these skills will have been gained at undergraduate, or post graduate levels (pre-work). But informal knowledge gained without a specific qualification may help - and short specialist courses (as above), may be sufficient to gain competence and keep up to date with programming developments.			Will find it difficult to get into the sector without these specialist underpinning skills. But may have significant informal skills and experience to mitigate against this. Also "transient specialist" skills (above) will help.
Transferable Skills (between different sectors)	More general work and life skills vital for the workplace, which may be taken from job to job but which require refreshing in new role and employment contexts. Vital transferable skills include both personal (e.g. communication, teamwork, learning) and business dimensions (e.g. finance, marketing, management, customer care)	Moving from technician in a web development team to a management role in a wider sectoral context will mean its essential to pick up generic communication/management skills - which are often difficult to assimilate 'on the job' (especially if its currently a 'technical' role).			Essential - but never too late to start!

## Provision

According to the UK Register of Learning Providers ([www.ukrlp.co.uk](http://www.ukrlp.co.uk)), there are 308 LSC registered providers operating in Norfolk. 164 are based in Norwich.

To make sense of the data available, we have listed and commented on 13 training categories which may be of use to web development companies.

Category	Comment
HE Specialist	Particularly pertinent to the top of the pyramid (see above), this will cite the names of departments or faculties and the names of people working on, or interested in relevant research.
Coaching	We'll include various coaching companies who could be of use to the sector group.
KTP	If there is KTP activity going on in a particular institution, this needs to be captured here. People from the sector group need to be able to easily get in contact with the right person to discuss possibilities.

Web development tools	This would capture all of the trainers providing web development training.
Management	The “usual suspects”... certainly need to include all of the Business Link offer under their Solutions for Business banner.
People & Performance	As above plus the more esoteric coaches offering NLP etc
Sales & Marketing	...
IT Skills	This is of the more generic kind – Excel, PowerPoint etc..
Writing, Presenting, Communicating	...
Foreign Languages	May be of use to some companies involved in export.
Export	The chamber’s role needs to be highlighted, plus the Business Link/EEI support role.
General FE	..
General HE	..

Training support comes in all shapes and sizes and its important to be clear about the type of provision available from each provider. The following categories are used to describe different types of training intervention:

Type of Activity
Collaboration
Coaching
Scheduled Course
Unscheduled Course
Bespoke Training
Online Training
Hybrid Delivery

Whilst the more generic types of courses are available locally, more specialist provision (especially for scheduled courses) tends to be delivered further afield. For the purposes of this exercise, four locations have been chosen:

**Location**

- Norwich
- Norfolk
- East
- London

**Outputs**

58 training providers have been included in this supply side search. These have been sourced from UKRLP or else directly from web searches when UKRLP has been inadequate for specialist courses.

Trainagain will continue to update both providers and courses using its web based live exchange system - the current analysis is based on data available on 15<sup>th</sup> March 2010. Both courses and providers will appear and disappear from the system as time moves on. Only live information is shown on Trainagain so anything past its delivery date is not shown, however it is available for analysis through "back-end" tools.

Of the 58 providers shown, the majority of these come from Norwich. The types of training they provide are wide ranging and any of the subject categories could be of use to web development companies. However, there are very few specialist web technology courses available in Norwich or the surrounding areas, and there is virtually no "scheduled" provision. The significance of scheduled provision is that it provides a barometer for *sustainable* demand in a particular subject area. Almost any flexible trainer can arrange for a specialist course to be delivered to a specific group given sufficient time to source the tutor and timetable the event, but this gives little indication of sustainable demand. So Trainagain has included scheduled courses in London to show what is available and what kind of courses are considered sufficiently popular to schedule on a regular basis. 11 providers from London are highlighted here.

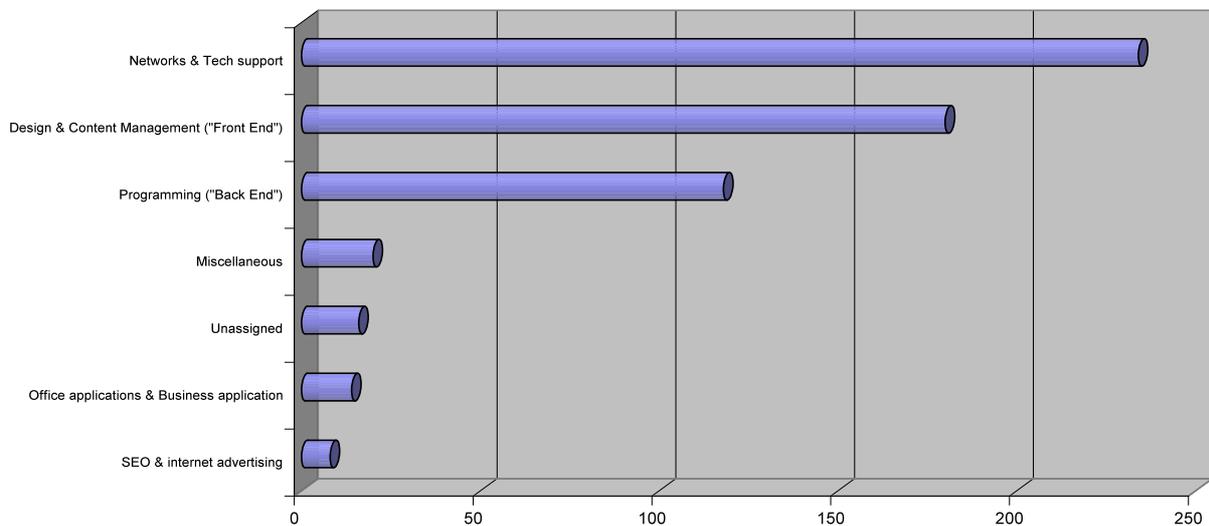
Count of Category	Location ▼				
Category ▼	East	London	Norfolk	Norwich	Grand Total
Business				3	3
CAD/CAM				2	2
Coaching				1	1
Computer Programming				1	1
Foreign Languages				1	1
General FE				1	1
Grant Funding				1	1
HE Specialist				1	1
Health & Safety				2	2
IT Skills				1	7
Learning Barriers				2	2
Management				1	2
People & Performance				1	11
Web development tools		2	11		4
Writing, Presenting, Communicating				3	3
<b>Grand Total</b>		2	11	3	42

## Specialist Courses

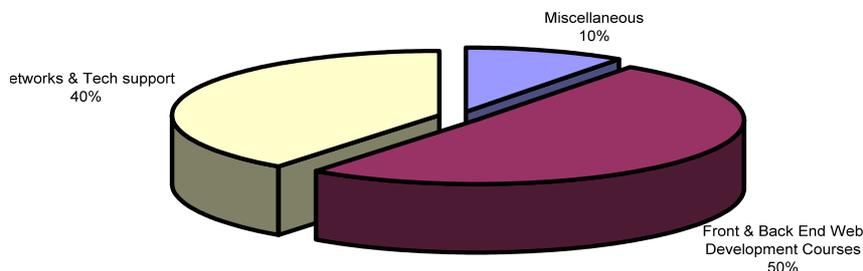
Trainagain shows 590 courses<sup>6</sup> in its computer programming and web design category. These are broken down below into seven categories, ranging from networking & technical support to front and back end web development courses – and also including business software applications and search engine optimisation (SEO) and internet advertising. From the table it can be seen that “networking and technical support” is the single most popular scheduled category, reflecting the importance of connectivity and communication in internal business processes.

However, when we bunch together these categories into technical support; front & back end tools; and “other”, a different picture emerges.

**Web Development, Technology & Related Courses**



**Breakdown of Courses**



<sup>6</sup> As at 15<sup>th</sup> March 2010

50% of scheduled courses published on Trainagain are for front and back end web development. This reflects the growing market for website programming and design and the degree to which companies using the internet to communicate with their customers, suppliers and staff are requiring more sophisticated platforms to display a range of images (animation; video; graphic design) and data (often sophisticated databases for stock listings; directories; etc..).

*A complete list of relevant courses published on Trainagain can be found at Annex 2.*

## **Conclusions on Training Provision**

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Web development and technology describes sectoral activity which takes place at two levels: Provision for connectivity and technical support; and back end programming and front end design. The latter is characterised by software programmers and designers providing the tools to populate the internet with meaningful content (including design elements and databases).

There are many skills associated with this sector. Some are specific to technical knowledge, whilst others are generic skills needed in any business. Moreover there are different ways of looking at the acquisition of skills and knowledge in the sector. This report suggests a pyramid of needs from pure innovation and knowledge transfer at the top to technical and generic skills development at the bottom. This approach reminds us that skills need to be looked at in their broadest sense, and strategies which address all levels of the pyramid are more likely to lead to a dynamic growing sector.

When it comes to technical skills, London is, not surprisingly, the location for most specialist scheduled courses. This shouldn't be seen as weakness for Norwich; rather, it suggests a need for businesses in Norfolk to look to London as a natural specialist hub. Train journey times from Norwich to London, Liverpool Street are 2 hours or less and can cost as little as £20.00 for an advance return. There are several providers close to Liverpool Street who offer specialist training in a range of programming tools.

The sector is characterised by a great deal of informal learning, peer to peer sharing; professional networks (both physical and on-line) and specialist on-line forums. These may be used as substitutes for more formal learning processes, but more often will supplement institutional courses.

Once a sector community for web development and digital technology is established in Norfolk, it would be a good idea to explore how individual businesses might formalise their development in terms of innovation/collaboration; knowledge transfer partnerships; technical skills; and generic workforce development.

Measuring progress is essential: Performance against Plan could be measured by each organisation that 'funds' the training – whether funding agencies, providers or employers.

This would involve a diverse set of measures - for example:

1. LSC – Qualifications (Section 97), Level 2, NETP and Skills for Life targets;
2. European Funds – Jobs created, uplifted business turnover;
3. RDA – Training opportunities (6 hours), jobs, turnover, strategic added value';
4. Employers – Productivity, IIP (Investors In People) measures, GVA;
5. Private providers – Trainee throughput, customer satisfaction

## Overview of UK web and digital sector networks

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### Cornwall

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There are some similarities between the counties of Cornwall and Norfolk, specifically their relative isolation from main commercial centres, and also a thriving local digital and creative cluster. Cornwall however does not benefit from a major city, with all the infrastructure, skills and customer base, that Norfolk has with Norwich, nor relatively quick access to London (Six hours versus two hours).

However, there has been considerable local and national government investment in business support and business networks and our specific experience of Cornwall suggests that particularly within the Creative and Digital sector, there is high active use of the networks which are well funded and offer a wide range of services and support to their members.

Norfolk is at 544,000 hectares the fifth-largest county in England with a population approaching 900,000, while Cornwall has a population of 534,300, and covers an area of 356,300 hectares. Truro urban statistical area, which includes parts of surrounding parishes, has a population of 20,920.

Cornwall is one of the poorest areas in the United Kingdom. The GVA per head was £12,681, just 65% of the UK average for 2004. Norfolk GVA is £16,573.<sup>7</sup>

### Cornwall Creative and Digital Industries Economic Impact

The Creative industries currently represent 5% of Cornwall's economy and continue to grow at a faster rate than any other area of the economy. they are acknowledged within Cornwall's 'top 5' most important priority sectors for future growth - 'the media sector offers high paid, high skilled work with significant potential for economic growth via exploitation of intellectual property (iP).' (Creative Value, March 2003).

(baseline figures from 'Counting on Creativity' research 2007):

- Annual turnover £421 million – 29% growth between 2000 -2004 (ABI statistics)
- A workforce of 10, 200 full time equivalents, an increase from 2000 - 2004 of 19%
- 34% increase in GVA since 2000
- GVA per employee £28,540 compared to an average £25,900 across all other sectors (recent research identifies GVA per FTE for 'Digital Creatives' in Cornwall as £38,600 with strong potential to increase given the right support.)
- Has broadened its market reach – with 10% of businesses exporting internationally,
- 42% earning at least half of their income outside Cornwall and just 30% earning all their income solely in Cornwall.
- Achieved with investment of £43 million being delivered through the Objective One programme.

Further investment has been made under the Creative Cornwall banner, with the Cornwall Film AVIS-D project, running Jan 2005 to June 2007. A subsidiary of regional development agency South West Screen, overseen by an independent Cornwall-based board, Cornwall

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<sup>7</sup> *Headline Gross Value Added (GVA) per head by NUTS3 area at current basic prices - source ONS 2009*

Film, it invested £1.9m (£914K ERDF funding, leveraging a further £967K), in the sustainable growth of businesses in the audio-visual sector through a range of business interventions.

As at Jan 2008 the AVIS-D project had delivered:

Outputs	SMEs assisted	Safeguarded jobs	New jobs	New sales
Targets Achieved	56*	53	287	5262K

**The 2012 Economic Impact Targets have been stated as:**

- Annual turnover £670m
- Annual sector growth rate 6%
- Number of people employed 12,000
- Increase of GVA per head to £36,500
- 50% of products and services sold nationally/internationally

The creative industries in Cornwall also face significant challenges as a rural and dispersed industry in an increasingly competitive global market. Therefore, over the past ten years, Cornwall has established and consolidated (sub) sector networks with a geographic as well as sectoral dimension.

The funders state that networks are key to the ecology of a "creative place", connecting businesses, generating the exchange of knowledge and ideas, linking to specialist resources within county including Tate St Ives, Eden and University College Falmouth, and, with the input of sub sector expertise, increasing the skills, management and marketing expertise of businesses.

**The present sector networks are:**



### Digital Peninsula Network

#### Network specialty and goals

Support and advice for businesses within the ICT sector

#### Year of creation

1999

#### Number of members

200+

#### Outline of activities including networking, funding training

1. Non accredited and accredited training
2. Funding for training
3. Computer suite open to members

4. Network for members
5. Hold a franchise with CCB so are able to access TTG funding for their members
6. Offers business advice and direction to ICT businesses
7. Owns Network Cornwall

### **Member fees and benefits**

#### **Non - Centre (Network) Membership - £99 per year**

All non-Centre network services, including:

1. Networking
2. Market your Services: on our website, in the annual directory, on the newsletter
3. ICT-scout Service
4. Newsletter
5. Subsidised training/seminars and workshops
6. Events – subsidised entry
7. Discounts from suppliers
8. Refer a new member
9. Centre use: £2.00 per hr
10. Access to upstairs £7.00 per hr

#### **Level 1 Membership - £141 per year**

1. Unlimited access to 'Downstairs @ DPN' (excluding meeting area)
2. 1gb space on server
3. Access to upstairs available at £2.50 per hr
4. All non-Centre network services, including:
5. Networking
6. Market your Services: on our website, in the annual directory, on the newsletter
7. ICT-scout Service
8. Newsletter
9. Subsidised training/seminars and workshops
10. Events – subsidised entry
11. Discounts from suppliers
12. Refer a new member

#### **Level 2 Membership - £264 per year**

1. 5gb space on server (DPN is not responsible for any data lost)
2. Remote Access
3. Unlimited access to 'Upstairs @ DPN'
4. All non-Centre network services, including:
5. Networking
6. Market your Services: on our website, in the annual directory, on the newsletter

7. ICT-scout Service
8. Newsletter
9. Subsidised training/seminars and workshops
10. Events – subsidised entry
11. Discounts from suppliers
12. Refer a new member

### **Corporate Membership Options**

Prospective members will be offered an informal Needs Assessment when expressing an interest in corporate membership options. You will discuss how DPN can be of benefit to your business. A suitable membership level will then be discussed. You will also be given the opportunity to request bespoke training for your staff.

### **Corporate Membership Costs**

Up to 8 employees - £176 per year.

Over 8 employees - £423 per year

### **Downstairs centre use**

1. Level 1 Membership benefits for each named member of staff
2. Up to 30 hours use of Upstairs at DPN (per business or organisation) per month
3. Half price rental of the meeting room
4. All non-Centre network services, including:
5. Networking
6. Market your Services: on our website, in the annual directory, on the newsletter
7. ICT-scout Service
8. Newsletter
9. Subsidised training/seminars and workshops
10. Events – subsidised entry
11. Discounts from suppliers
12. Refer a new member

### **Sponsor names**

Company limited by Guarantee

Originally funded by ERDF under Objective One

<http://www.digitalpeninsula.com/>

## Cornwall Social Media Café

### Network specialty and goals

The Cornwall Social Media Cafe is designed to bring together anyone interested in social media; to meet, get acquainted and share ideas.

### Year of creation

2009

### Number of members

c. 15, but slowly growing

### Outline of activities including networking, funding training

Very loose organisation, based specifically around informal monthly networking events

### Member fees and benefits

Free

### Sponsor names

Aren Grimshaw, Head of Social Media at UKNetWeb

Laura McKay, Senior Account Executive at Deborah Clark Associates (Cornish PR agency)

<http://cornwallcafe.wordpress.com/>



## Cornwall Design Forum

### Network specialty and goals

To embrace and cultivate creativity in the design industry within Cornwall.

Set by designers to cover all disciplines of design from 3D design, interiors and landscape to architecture and graphic design. It seeks to be a focus for this dynamic and growing business sector in the county and a crucible for ideas and action.

It has three distinct objectives:

1. to set the strategic agenda for design in Cornwall.
2. to act as a communication point between designers, the wider business community and the designers of tomorrow.
3. to raise the profile of design through events, marketing and advocacy

### Year of creation

2004

### Number of members

Not known – estimated at 40-50

**Outline of activities including networking, funding training**

Any training offered is funded by ESF, but it appears that they don't offer any themselves. Instead, they guide members to relevant courses provided by other organizations including Creative Skills, the Design Council and University College Falmouth.

**Member fees and benefits**

1. £40 per annum
2. Access to the members' area of the website:
3. Research
4. CPD material
5. project tenders
6. job vacancies.
7. View and share recommended suppliers with other CDF members
8. A regular members' email newsletter featuring news, member updates and details of the latest CDF events.
9. Discounted and priority entry to a quarterly programme of events, featuring high-profile speakers and CPD opportunities
10. Representation on, and joint initiatives with, the South West Design Forum
11. Advocacy at local, regional and national level to funders and decision makers
12. A membership card to receive discounts with a range of Cornish suppliers, services and retailers  
Administered by Creative Skills (see below)

CREATIVE  
SKILLS

**Creative Skills****Network specialty and goals**

Professional development organisation for all creative industries practitioners in Cornwall including artists, writers & designers

**Year of creation**

2001

**Number of members**

Not known, estimated at 100

**Outline of activities including networking, funding training**

1. Creative Skills provides relevant and pragmatic advice and support for Cornwall-based creative industries practitioners and businesses.

2. Access to professional development opportunities
3. Skills development
4. Training
5. Networks.

### Member fees and benefits

Free

### Grants

The Professional Development Grant provides up to £400 to help people who work in the Creative Industries in Cornwall and the Isles of Scilly to undertake development opportunities. Grants are only available to individuals who successfully complete one of the following Creative Skills courses 'Writing Skills for Creative Practitioners' or 'Managing your Finances'.

### Sponsor names

Convergence/ESF Funding

<http://www.creativeskills.org.uk>

### Creative Skills training brochure:

The brochure is divided into two main sections: TRAINING and EVENTS. The TRAINING section lists various courses with their dates, durations, and descriptions. The EVENTS section lists upcoming events with their dates and topics.

Section	Course/Event Name	Date	Duration	Key Details
TRAINING	Collaborative Working Workshop	March 2	1 day	Develop your skills in collaborative working...
	Business Skills for Creative Practitioners	March 22	1 day	Develop your business skills...
	EU Funding for Creative Practitioners Demystified	March 24	1 day	Learn how to access EU funding...
	17th Edition Wiring Regulations BS7671	March 28	1 day	Learn the latest wiring regulations...
	Cherry Picking	April 13	1 day	Learn the art of cherry picking...
	Professional Trainer's Certificate	April 21	1 day	Gain a professional qualification...
	Unleash the Tiger Building self-confidence	April 22	1 day	Build your self-confidence...
	Artist Film Course	April 23	1 day	Learn to create short films...
	Signage	May 18	1 day	Learn the basics of signage design...
	EVENTS	ART&Dance Supporting artists practice through information and networking	March 8	1 day
Corwall Visual Arts Forum		April 28	1 day	Visual arts forum...
WILD Academy Preview		April 28	1 day	Wild Academy preview...
WILD Artist Talk		May 3	1 day	Wild Artist talk...
Corwall Visual Arts Forum Afternoon		May 15	1 day	Visual arts forum afternoon...

The most popular 'general' network is:

**Cornwall Chamber of Commerce & Industry (CCCI)**

**Network specialty and goals:**

General sector coverage

Covers the whole of Cornwall

Members of the British Chamber of Commerce

**Year of Creation:**

1988

**Activities:**

Regular networking opportunities via monthly breakfasts

**Number of members:**

11,000, but only c. 300 active

**Outline of activities including networking, funding, training:**

1. Events are held around the county, but the only regular one is their monthly Business Breakfast, attended by around 100 members.
2. Discounted training courses specially tailored to needs.
3. Free email contact with the entire membership
4. Free coverage on the Chamber website
5. Access to the British Chambers of Commerce, linking to over 100,000 businesses across the UK through member messaging
6. Access to international trade advice, trade missions and exhibitions.
7. Free access to a confidential legal helpline

**Sponsor names**

1. Business Cornwall
2. Coodes Solicitors
3. Cornwall College Business
4. Cornwall College Business
5. Ginsters
6. Ocean Falmouth
7. Office SMART
8. Pirate FM
9. St Austell Brewery
10. Tate St Ives
11. Worldwide Financial Planning
12. Worldwide Financial Planning Limited

Additionally in Cornwall, there is a non-sector specific network:



### **Cornwall Business Collaboration Network**

Funded by Convergence, and promoted under the BIS Solutions for Business brand. Under the EU's Convergence investment programme for Cornwall, YTKO have been appointed to set up and manage the business collaboration networks programme for the county, supporting 380 businesses of all sizes over its three-year lifespan. £1.35 million funding has been awarded by the EU's European Regional Development Fund (ERDF) and the South West RDA, as part of the overall £25 million EU investment aimed at supporting business growth in Cornwall.

The project's aim is to encourage and support businesses to work together through collaboration or joint ventures to pursue market opportunities that they would be unable to do on their own, to attract new customers and accelerate sales revenues. In turn, this should stimulate and accelerate the local economy through joint working and professional support services.

The local team work closely with Business Link, existing business networks, and sector-specific organisations, to ensure successful, tangible projects.

Cornwall's Business Collaboration Network is loosely modelled on YTKO's very successful [www.norfolknetwork.com](http://www.norfolknetwork.com) which was started in May 2003 as a public/private joint project and eventually spun-out as a separate organisation.

The BCN helps SMEs from all sectors form successful business collaborations; identify gaps which may assist in a potential joint venture; and gives them access to a full-time team of market analysis experts with a view to pursuing market opportunities which they may not be able to do on their own. This ultimately helps the SME to attract new custom and step up those important sales revenues. In turn, this stimulates and accelerates the local economy through joint working and professional support services.

Working closely with [www.businesslink.gov.uk](http://www.businesslink.gov.uk), existing business networks, and sector-specific organisations, the Cornwall BCN objectives are to achieve sustainable, successful and tangible projects for all Cornish companies.

It is not a traditional business network and does not aspire to be. But it does work closely with existing business support agencies and networks in Cornwall to reach as wide an audience as possible. The team run introductory events, workshops and seminars, to create an awareness of the three-year project, of the potential for collaboration and how to identify opportunities.

Targets are: 380 companies assisted, and over 150 collaborations undertaken.

Collaborations to date: 45

Companies engaged/assisted to date: 120

[www.partnertosucceed.co.uk](http://www.partnertosucceed.co.uk)

## Brighton and Sussex

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### ICT, creative, media and digital networks and infrastructure

The South East's regional strengths in 'digital content' have led the South East of England's Regional Development Agency (SEEDA) to prioritize the sector, creating the South East Media Network (SEMN) to provide a strategic focus, and 2.5% growth per year. Results from the Experian Report commissioned by SEEDA in 2006 showed that digital content creation for South East of England is worth £8.7 billion a year to the UK economy representing over 20% of the total figure for the UK and is set to grow to £11 billion over the next five years. This sector is well educated with more than half the industry being university graduates. It employs 170,000 people working within 21,650 companies in the region.

The digital media cluster centred in Brighton and surroundings (Sussex) includes companies specialising in web / internet (iCrossing, Madgex, Worthmedia), animation (Little Loud, Plug-in, Renegade), e-learning and interactive (Epic, CogApp), Virtual Worlds (Club Penguin, Second Life) games development (Relentless, Black Rock, NC soft), television (Seventh Art, First Screen), music (Fat Boy Slim, Ambient), film (Spice Factory, Great British Films) and digital TV (Electric Sky, Byte TV). This is supported by a coherent infrastructure from Wired Sussex, Screen South, Lighthouse, Brighton Music Network, Bang (Brighton Animators Network) and Brighton and Hove City Council.

Brighton hosts the largest arts festival in England (which brings £20m into the local economy each year) and thirty other major arts festivals. Several arts and creative industries organisations of regional and national importance are based in the city, including Arts Council England-SE, South East Dance, Photoworks, Brighton Photo Biennial, Lighthouse, Wired Sussex, Fabrica and Same Sky. It also hosts organisations and businesses with international significance such as Blast Theory, Nightingale Theatre and Linden Labs (makers of 'Second Life') and Disney's 'The Penguin Club'.

Sub-sector	Percentage	Number
Digital media, software, leisure software and games	33%	500
Music and the performing arts	11%	165
Publishing and literature	9%	135
Visual arts and photography	9%	135
Design	8%	120
Art & Antiques	7%	105
Film, TV & radio	5%	75
Architecture	4%	60
Advertising	3%	45
Crafts	3%	45
Heritage & Museums	2%	30

Others (details unspecified)	6%	90
Total	100%	1505

The creative industries cluster in Brighton and Hove in 2007 provides nearly 16,000 jobs and 10.7% of employment in the economy. Approximately 1500 businesses are in the creative industries sector, a third of which are in the new media and digital sub-sector. It has grown at 4.4% between 2000 and 2005, making it the fastest growing sector in the city.

<b>Number of creative companies reported as located within Brighton &amp; Hove:</b>				
1998	2001	2004	2005	2006
787	1014	1231	1500+	1452
<b>Number of individuals reported as working in the creative industries in Brighton &amp; Hove, including employed and self-employed:</b>				
1998	2001	2004	2005	2006
2760	3732	6667	9000	10224
<b>Creative industries employment reported as percentage of total employment in Brighton &amp; Hove:</b>				
1998	2001	2004	2005	2006
2.4	2.8		8.5	9.0
<b>Average number of employees reported as employed in creative businesses in Brighton &amp; Hove:</b>				
1998	2001	2004	2005	2006
3.5	3.7	5.4	6.0	7.8

Source: BHCC creative industries comparative employment data 2000 and 2005.

Figures from the South-East England Development Agency (2007) indicate that Brighton and Hove has the highest skilled workforce on the south-east coast, with 42.6 per cent of its economically active population educated to NVQ level 4 or higher. It is also seeing strong growth in its working-age population of about 9.7 per cent, above the regional average.

This success also brings with it issues that the city is planning to address: how best to support, maintain and grow the sector for the future, and the impact of extremely high land prices (and therefore rents), both for residential and commercial properties.

## Networks and communities

NB: Creative Brighton is funded through SEEDA's Area Investment Framework (AIF) programme. AIFs are intended to provide a 5-10 year framework for investment by a range of agencies in an area, embracing several local authorities where appropriate. AIFs aim to tackle the issues facing an area from a wider social as well as economic perspective. They aim to bring together the principal public, private and voluntary sector partners and focus funding in an integrated way to address topics such as skills development, social inclusion, health, crime, and regeneration. There are six pilot AIFs supported by SEEDA in the South East.



### Brighton Farm

<http://www.brightonfarm.com>

The Brighton Farm is a networking group for web designers, developers and people with related new media skills who live in Brighton and the surrounding areas. We meet weekly in different venues around Brighton and Hove.

### Brighton Girl Geek Dinners

<http://www.brightongirlgeekdinners.co.uk/>

A Geek Dinner is an opportunity to meet up and socialise with interesting people over dinner. Geek Dinners are organised all over the world and are great fun. Our local one is the Sussex Geek Dinner. Girl Geek Dinners are ones 'For the girls'. This doesn't mean that men can't attend, just that they need to come as the guest of a female.



### Brighton New Media List

<http://www.brightonnewmedia.org/>

A large mailing list dedicated to new media in Brighton. Rather than being a formal forum, the BNM list is a networking exercise that puts like-minded people in contact with each other and provides an arena for the free sharing of assistance and ideas. Whether you wish to raise a point of interest, gain answers to a technical query, have a site critiqued, or simply pass the time of day, the BNM list enables you to communicate directly with the local new media community.

### Brighton Vine

<http://www.vinebrighton.co.uk/> - now closed

Vine was a networking group launched specifically to support entrepreneurs in the Brighton area. Its aim was to encourage business owners to develop themselves and their businesses, and make new friends and contacts in a relaxed, informal setting.



### **Creative Brighton**

<http://www.creativebrighton.co.uk>

Creative Brighton is the independent industry-led group that represents the creative industries sector in Brighton & Hove, recognised locally and regionally as the primary consultative organisation for the city's creative sector.

### **Culture Geeks**

<http://www.culturegeeks.org.uk/>

Brighton-based community for people interested in using digital technologies in the cultural sector

### **Digital Media Awards South**

<http://www.thedigitalmediaawards.co.uk/>

The Digital Media Awards South recognise and reward passion, creativity and business genius in the digital media sector in the south of England.

### **Flash Brighton**

<http://www.flashbrighton.org/>

Meet weekly in Brighton to discuss all things Flash - from illustration, animation and graphic design, all the way through to hardcore ActionScript development and related topics. Some of the sessions are informal discussions and study groups and some are more formal presentations from high-profile Flash gurus.

### **The Inuda Network**

<http://www.inuda.net>

A community of people, passionate about making a difference through technology innovation. Open to everyone, with a particular focus on students and graduates with technical backgrounds.

### **Open Coffee Sussex**

<http://www.opencoffeesussex.com/>

A regular morning meeting at the Sussex Innovation Centre for people interested in conversations about business and technology.

### **Sussex Geek Dinner**

<http://sussex.geekdinner.co.uk/>

A Sussex Geek Dinner is an opportunity to meet up and socialise with interesting people over dinner.

### **UX Brighton**

<http://uxbri.org.uk/>

An informal group of user experience / interaction / web designers.



### **Wired Sussex**

<http://www.wiredsussex.com/>

Wired Sussex works with digital media companies of all sizes helping them to develop and grow. For those working in or running a business in the digital media industry in Sussex, there's support for Jobs, with new digital media positions posted every day; events - training, events, festivals and conferences; and news.

There are 1504 companies in the Wired Sussex member database, covering all aspects of digital media.

### **Women in Media**

<http://www.womeninmedia.co.uk>

Women in Media was originally launched on International Women's Day 8 March 2005 to both increase the number of women working in the digital media industry in Sussex, and to support those who already do. No longer publicly-funded, the initiative has continued with an annual conference and semi-regular networking events.

Regional:

### **South East Media Network**

[www.southeastmedianetwork.co.uk](http://www.southeastmedianetwork.co.uk)

A business led consortium providing strategic focus for the regions digital content sector. It exists to enable the South East of England's digital content businesses increase their share of the global market. SEMN provides two way communications between businesses, policy makers and support organisations. It informs local, regional and national strategies and drives improvement in business performance.

## Yorkshire

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### IT/Creative and Digital networks

With a regional economy worth over £75bn, one of the largest concentrations of universities in Europe attracting over £340m of research investment, Yorkshire & Humber has been rated as the best place for business in the UK. (OMIS Research 2006)

Leeds, the region's main city, is the most important centre for financial and professional services outside London, with one of the highest economic growth rates of any UK city.

With a population of over 5 million, the region is larger than Ireland or Norway, and provides over 10% of the UK's total graduates. Within the Creative and Digital Industry, the regional universities offer a wide range of strengths, from media and popular culture at Leeds Metropolitan, creative music technology at Hull to cybernetics at Sheffield and telecommunications at Bradford.

### Creative and Digital Industries in Yorkshire and Humber

Considered to be the fastest growing digital sector in the UK outside of London, Yorkshire and Humber has over 13,000 electronics, ICT and media companies based in the region. Global companies include O2 Plc, Tunstall Telecom, ITV, Pace Micro Technology and Filtronic.

Over 10% of the UK's games development talent is based in Yorkshire, with Sheffield host to two of the largest applied e-learning services in the world – Learn Direct, the UK's biggest e-learning provider as well as the University for Industry (UFI), the UK's largest commissioner of e-learning.

The region is also the centre of Europe's electronic tagging industry with the National RFID centre, the European Centre for Automatic Identification and Data Capture (AIDC) and the Centre for Smartmedia.

Yorkshire's Centres of Industrial Collaboration were created to bridge the gap between industry and university expertise. They include the Digital Print CIC, which helps to integrate digital printing into conventional printing operation, and assists companies in the manufacturing of value-added products using digital technology, such as high quality digital and security printing of RFID smart labels and tags.

The Wireless Technologies CIC is of the world's most advanced centres of expertise in wireless communications, with expertise in areas including security, surveillance and secure communications, wireless broadband systems, digital broadcasting and satellite phone technology.

The Design Futures CIC has expertise in user interface design, working on projects to ensure the features and functions of client's products are translated into something that users find usable, useful and desirable.

Each CIC also runs an extended network of experts, university and FE contacts, and international corporate partners, as well as training and support for SMEs.

Leeds claims over 12,000 people work locally in marketing, communications and E business. In 10 years the number of people working in this media sector has risen by nearly 20%. Leeds has 162 companies in advertising and related sectors, over 70 graphic design businesses, eight news agencies and 24 companies working in television.

In Yorkshire the Creative and Digital sector is seen to comprise:

- ICT
- Electronics including telecoms
- Music, Visual & Performing Arts
- Media & New Media Film, TV, Games & Digital Content
- E-Learning
- Print & Printed Packaging
- Design Product, Branding & Web

The sector employs 123,025 people including 18,006 self-employed and freelancing; 13,183 CDI businesses in the region; £5.21bn gross value added to the region

RDA contacts are:

Stuart McFarlane

Sector Manager – Digital & New Media

t: +44 113 3949598 e: [stuart.mcfarlane@yorkshire-forward.com](mailto:stuart.mcfarlane@yorkshire-forward.com)

Emma Frost

Sector Development Executive - Digital & New Media

t: +44 113 3949615 e: [emma.frost@yorkshire-forward.com](mailto:emma.frost@yorkshire-forward.com)

Bill Boffin

Strategic Cluster Champion - Digital & New Media Liaison between Academia & Industry

t: +44 7836 242047 e: [bill.boffin@yorkshire-forward.com](mailto:bill.boffin@yorkshire-forward.com)

### **Local networks with responsibilities covering web and software development**

A wide range of business support networks in the region provide inward investors and indigenous companies with opportunities for cross-collaboration, access to financing, as well as training and advice.

#### **Game Republic**

Game Republic is an independent trade alliance that supports video game development in the region. Its members include Outsource Media whose skills in voice production are used by the likes of Namco Hometek; Sumo Digital whose clients include Microsoft, THQ and Sega and ZOOtech, which develops productivity tools for video title production, and works with leading Hollywood studios including Disney. In 2007, Game Republic was fully integrated into Screen Yorkshire, allowing the games sector in the region access to Screen Yorkshire's strategic investment funds. Screen Yorkshire is the regional screen agency for film, broadcast and digital media content. R&D awards are available for projects that look at the creative and economic possibilities of content, for new and emerging media platforms via a scheme called MELT.

<http://www.screenyorkshire.co.uk/gamerepublic/>

#### **Learning Light**

E-learning companies benefit from the work of Learning Light, a centre of excellence in the use of learning technologies in the workplace and organisational learning best practice. It is the official European partner of the US's leading e-learning research centre Bersin & Associates. Members can access a tendering information and support service, and can collaboratively tender for projects beyond their individual capability.

<http://www.learninglight.com>



<http://www.e-learningcentre.co.uk/>

### **Advanced Digital Institute**

The Advanced Digital Institute focuses on wireless and consumer networking technologies, and is set to grow into a centre of around 50 engineers and R&D professionals.

<http://www.adi-uk.com>

### **CIDA**

#### **Creative Industries Development Agency**

Jo Wilkinson

t: 01484 483140 e: [info@cida.org](mailto:info@cida.org) w: [www.cida.org](http://www.cida.org)

### **West Yorkshire Linux Users' Group**

#### **Leeds Girl Geeks**

**Leeds Hackspace**, a meetup for people interested in any form of technology, Tuesdays every 2 weeks

**GeekUp**, a community of web designers, web developers, and other tech-minded folk. It is a grassroots knowledge sharing and networking social for folks involved or interested in the web and technology industry. Monthly events take place in Leeds and Sheffield.

**LinuxChix** is a community for women who like Linux and Free Software, and for women and men who want to support women in computing. The membership ranges from novices to experienced users, and includes professional and amateur programmers, system administrators and technical writers.

LinuxChix North is the chapter for LinuxChix in the north of England. It covers the cities of Bradford, Leeds, Manchester, Sheffield and York and the surrounding areas.

### **Agile Yorkshire**

Agile Yorkshire is a monthly gathering of IT professionals from in and around Yorkshire who meet to discuss extreme programming and agile methods amongst a host of other IT issues. We hope that by gathering together and discussing our experiences and views we all end up a little bit wiser and more able to do our jobs.

<http://www.agileyorkshire.org/>

### **NorthernNet**

NorthernNet supports and develops the creative and digital industry, through encouraging innovation and collaboration, safeguarding and creating jobs and companies, training and skills development.

An innovation and collaboration programme, is a calendar of forward thinking, innovative, visionary, industry responsive events and seminars. These events provide a free and in some cases, additionally funded, space for the creative and digital sectors to work together on buyer briefs, expand their ideas and products to survive and thrive in a multi-platform world.

The events connect the North West, Yorkshire and the North East, giving a detailed picture of who is doing what, where and how. They are delivered by industry specialists who will give their insight into what's on the horizon.

Pay-as-you-go Media Access Bureaus in convenient locations across the North will enable freelancers and small businesses to really compete in the game. In the Media Access Bureaus they will be able to access the kit (hardware and software) and speed needed to open new markets, extend their resources and expand their offer to customers.

The speed and capacity for data storage and transmission has never before been available to Northern businesses. For the first time the North West, Yorkshire and the North East will have a single high speed, digital network that connects the region's creative and digital industry sectors and customers.



The speed and efficiency of NorthernNet will transform the way businesses are able to develop their products and communicate with customers. It will help creatives to explore new R&D. This technology will equip the Northern digital and creative companies with the infrastructure to compete with the rest of the world.

<http://www.northernnet.co.uk>

A database of all the Creative and Digital companies and freelancers from across the North of England is also being developed. This will enable companies to showcase their work on the NorthernNet website. There will also be a matchmaking service for buyers who will be able to search via specialism and view extensive credentials.

Populated with information about all three regions' (North West, North East, Yorkshire and Humber) digital and creative businesses, Northern Knowledge will allow companies to showcase themselves, get targeted industry news and events and continue to collaborate through social media platforms.

### **bMedi@**

bmedi@ is a thriving network of media, new media and technology related companies in the West Yorkshire district

Steve Ding

t: [steve@bmedia.org.uk](mailto:steve@bmedia.org.uk) w: [www.bmedia.org.uk](http://www.bmedia.org.uk)

### **Creative York and IT & Digital York**

Part of Science City York, a successful business and skills development initiative promoting technology-based enterprise in York and North Yorkshire, these networks offer valuable opportunities for individuals and businesses to share knowledge and collaborate with others through events, workshops and seminars and even 'virtually' via a secure on-line business network. Membership is free and open to all. Businesses may also be eligible to access fully-funded specialist business support from Science City York.

Contact Heather Niven

e: [heather.niven@york.gov.uk](mailto:heather.niven@york.gov.uk), t: 01904 870055, F: 01904 426045, M: 07771 938820

Science City York Enterprise House, Innovation Way, York, YO10 5NY

t: 01904 554433 e: [science.city@york.gov.uk](mailto:science.city@york.gov.uk) w: [www.sciencecityyork.org.uk](http://www.sciencecityyork.org.uk)

### **Digital South Yorkshire**

A network of "Digital" companies in South Yorkshire

David Kay t: 07795494540 e: [david.kay@sero.co.uk](mailto:david.kay@sero.co.uk)

### **Kirklees Media**

Providing offices, studios, live-work spaces, IT, digital telephony and events for the Creative Industries sector, with international residencies, exhibition programmes, festivals and events

Deborah Walsh t: 0870 990 5000 e: [deborah.walsh@mcnetwork.co.uk](mailto:deborah.walsh@mcnetwork.co.uk) w: [www.mcnetwork.co.uk](http://www.mcnetwork.co.uk)

### **Leeds Media**

A network which works to develop and promote Leeds' media, marketing and e-business sectors

t: 0870 990 5220 e: [info@leedsmedia.co.uk](mailto:info@leedsmedia.co.uk) w: [www.leedsmedia.co.uk](http://www.leedsmedia.co.uk)

## Networks, clusters, and economic development

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The main economic advantages of networks for small firms lie in the capacity for sharing knowledge and risk about markets, impact of regulations, products, supplies and so on – activities that are often too time consuming to be carried out effectively by small firms that have less access than large firms to useful information.

### Economic development best practices

Some networks are formal business associations, others informal clusters and some even created by large firms in order to benefit from falling transaction costs in outsourcing or contracting with small specialist services and components firms (Williamson, 1975). Scale and superior information give large firms clear competitive advantages. These information asymmetries can make markets a hostile environment for individual small businesses. Networks offer a useful halfway house between market uncertainties and corporate hierarchies, though small firm owners themselves also stress the social contact as well as the business opportunities.

Perry (1999), summarising the economic benefits of networks for today's small enterprises, notes that networks offer three distinct advantages to SMEs over both markets and bureaucratic hierarchies – improved resource use and sharing or risk; flexibility and adaptability; and more effective access to information and skills.

Porter (1990) sees the competitive advantage enjoyed by certain geographic cluster networks in international or global competition as deriving directly from these economic benefits. The defining feature of Porter's clusters is their capacity for boosting local and national business competitiveness through drawing on local skill specialisations and other factor advantages, and both the competitive and cooperative relations between firms in related industries, usually driven by prevalent supply-demand conditions. Although Porter recognises the importance of local geographic proximity and the density of transactions between cluster firms, his concept is essentially industry (sector) based.

Highly concentrated markets attract skilled workers by offering job mobility and specialised suppliers and service providers - such as subcontractors, workforce trainers, marketing firms, or intellectual property lawyers - by providing substantial business opportunities in close proximity. And concentrated markets tend to provide firms with various cost advantages; for example, search costs are reduced, market economies of scale can cut costs, and price competition among suppliers can be heightened.<sup>xxxiii</sup>

Entrepreneurship is one important means through which clusters achieve their benefits. Dynamic clusters offer the market opportunities and the conditions - culture, social networks, inter-firm mobility, access to capital—that encourage new business development.

A strong correlation exists between gross domestic product per capita and cluster concentrations. Several studies show a positive correlation between cluster strength and wage levels in cluster. Other studies indicate that regions with strong clusters have higher regional and traded sector wages.<sup>xxxiv</sup>

## SWOT

Below are summarised the Strengths, Weaknesses, Opportunities and Threats that affect the development of a 'digital' cluster and network in Norfolk:

<p><b><u>Market Opportunities</u></b></p> <p><b>Convergence of 7 sector groups.</b></p> <p><b>Established</b> - e-commerce</p> <ul style="list-style-type: none"> <li>USA \$657 billion e-commerce market (75% of world) (+10% by 2014)</li> <li>Information Technology Architecture</li> <li>Differentiation strategy</li> </ul> <p><b>Growing market segments</b></p> <p>"Up Sell "from Internet to mobile internet</p> <ul style="list-style-type: none"> <li>Mobile internet &amp; applications – Japan</li> <li>Mobile marketing</li> <li>Extend internet advertising to internet-based services: <ul style="list-style-type: none"> <li>games and app software used for marketing</li> </ul> </li> <li>Social media projects</li> <li>Online video</li> <li>Search engine optimization US (35% Y/Y Google growth) + Europe</li> </ul> <p>Online advertising</p> <ul style="list-style-type: none"> <li>Behavioural analysis/user research to justify extra spending to improve conversion and retention.</li> <li>Internet software in Europe</li> <li>Internet security especially in the Middle East</li> </ul> <p><b>Emerging market segments</b></p> <p>Web consultancy</p> <ul style="list-style-type: none"> <li>Understanding web data</li> <li>Offline -&gt; online and retail strategy integration</li> <li>Differentiation strategies</li> <li>User research to optimize performance</li> </ul> <p>Mobile internet applications - \$6.2b in 2010 (+47%). 75% free apps!</p> <ul style="list-style-type: none"> <li>China/India/Korea/Pakistan/Brazil/Russia</li> <li>Mobile ads - \$600 m in 2010. Overrated?</li> </ul>	<p><b><u>Market Threats</u></b></p> <p><b>Fast changing marketplace requiring high investment in skills development</b></p> <p><b>Agency positioning</b></p> <p>Digital agencies/consultancies are a threat to online marketing agencies (website development). Yet the largest share of Norfolk companies are website development companies!</p> <p><b>Technical standards</b></p> <p>Updating rules and standard of the World Wide Web Consortium.</p> <p>Bandwidth delivery cost may be falling faster in fiber, cable and copper than in wireless -&gt; slow down wireless penetration.</p> <p>Standards in mobile applications – Korea inventing its own standards</p> <p>Perceived threat from larger "carriers" moving downstream towards software consultancy – making it harder for SMEs to grow out of their "micro" status.</p> <p><b>Hype &amp; redundancy</b></p> <p>Application redundancy - picking the wrong software or technology platform (training on the wrong/'soon to be out of fashion' programme)</p> <p>Over promise – under delivery -&gt; M-Internet advertising</p> <p><b>Cultural differences</b></p> <ul style="list-style-type: none"> <li>One size does not fit all</li> <li>End-user expectations vary</li> </ul>
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<p>Social networking – fast growth yet low penetration (40% of US online users)</p> <p>New tech platforms and business models integrated with the old economy, providing increasingly predictable income streams.</p> <p>Cloud Computing - Consumer rather than professional</p>	
<p><b><u>Cluster Desired Strengths</u></b></p> <p><b>Networking within and outside the cluster (cross sectoral + internationally).</b></p> <p><b>Experience or willingness to acquire new skills</b></p> <ul style="list-style-type: none"> <li>Creativity</li> <li>Cultural/geographic</li> <li>Japanese market/technologies</li> <li>Indian/Asian sales force</li> <li>Internet software</li> <li>Video applications (see EPIC below)</li> <li>End-user behavioural analysis</li> </ul> <p>Allow to develop desirable mobile applications with a Technology Acceptance Model (TAM) based on playfulness, contents quality, system quality, internet experience and perceived price level plus perceived usefulness and ease of use.</p> <ul style="list-style-type: none"> <li>Internet + M-internet applications</li> <li>Social networking platforms</li> <li>Cloud computing for consumers</li> <li>E-commerce strategies + US market (Insurance industry).</li> <li>Internet security and the Middle East markets</li> <li>Search engine optimization + online advertising</li> <li>Social media and networking &amp; how to turn them into brand assets.</li> <li>User research for ecommerce optimization and online ad spending justification</li> <li>Creative sector collaboration and support</li> <li>EPIC video production strengths translated to web and mobile – if cost-effective</li> <li>University and College of the Arts knowledge sharing</li> </ul>	<p><b><u>Cluster Unwanted Weaknesses</u></b></p> <p><b>Isolation:</b> working alone in garden shed</p> <p><b>Growth pains</b></p> <p>The ability of Micro companies (less than 5 employees) making the required step change towards growth – e.g. taking on fixed costs (labour) in a volatile and changing market</p> <p><b>Go with the hype and overlook established / profitable market segments</b></p> <p><b>Norfolk 'brand' issues</b></p> <p><b>Start=up and Follow on funding</b> (although not flagged in the survey as an issue)</p>

## Conclusions and Recommendations

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### Where do we go from here?

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#### Norfolk's unique value proposition –no 'me too'

*"There's no point in us competing on creativity with London – we don't stand a chance."*

This was one of the comments in the focus group when the discussion turned to the promotion of Norfolk as a creative industries leader. Throughout the UK, it seems that nearly every city or county wishes to use its local creative industries as a major component of economic growth. Where there are large regeneration budgets, the "creative quarter" is being redeveloped with exciting new workspaces and support programmes.

Norfolk has neither the budget, nor, we would suggest, the world-class creative industry to compete either with these well funded initiatives or with truly unique creative centres such as London and Manchester.

Conclusions from the YTKO report for SNF can be brought together into three distinct areas:

- The discovery of a surprisingly large potential membership/cluster size of web development, mobile, content and application providers (at least 160 firms)
- An overlap with some areas of the Creative Industries sector, but potentially high degree of independence and specific focus
- Good clarity of user/member requirements and benefits, which are in line with effective, recognised economic development and cluster acceleration practice

#### The right resources for Norfolk

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In line with good marketing practice, we must look towards a niche or a segment of these major markets, find a strong proposition based on a scalable mix of existing expertise and future market demand, ensure real differentiation, and provide the necessary support that will grow local skills and sales to support economic development, and sustain the growth.

In fact, the creative industries in Norfolk have done well, and seemingly weathered the recession, but there is a lack of any real data in demonstrating the growth and robustness of the sector going forward.

#### "Do different" cluster

Like any other product, a local cluster needs differentiation to stand out and be successful. Creative industries in Norfolk represents a large slice of higher-value employment in the county, but there is no doubt that the wide range of businesses aligned under this description is not conducive to effective 'high growth' support activities. Since 2004, the role of the creative industries network – Creative Norfolk - has been to align, brand and showcase the diverse range of creative talent in the county. In the focus group convened for this report, some of the participants questioned what the outcomes were, and whether it was too inward-looking. It is beyond the scope of this report to comment on these observations, but it is evident that the 'digital' sector does not look to Creative Norfolk as a resource to help its growth.

However, our report into this niche between creative industries and ICT – covering web development, software development, and mobile applications – suggests that there is the nucleus of a unique and valuable cluster in the county. Properly nurtured it could co-opt the more technological and business oriented aspects of creative industry sector, and the more market facing elements of the ICT sector, and developed into a wide and deep specialist industry ready to engage with national and international markets.

There are some gaps to be filled – especially in developing a resource to serve the mobile market, and in creating the necessary training courses locally to meet the future needs of new businesses – but with around 170 local companies of all sizes and at all stages of growth, and all capable of being described as “digital”, the raw material is in abundance.

Supporting and accelerating the growth of this cluster will not be straightforward, especially since the market demands are ever changing and in many cases subtle and sophisticated. With some of the companies facing difficult times ahead, there may be problems achieving the necessary level of member support from any network or group. There is also competition – in the form of subsidies and grants from other more well funded regions, or from locations which simply offer greater access to customers and location prestige. While Norfolk does not have the considerable local funding available to Northern counties, nor the concentration of industry typical in larger metropolitan areas, the City and County councils are mindful of the need for effective and affordable economic development especially for knowledge based industries. Similarly, EEDA, as the Regional Development Agency, sees the support and development of knowledge clusters as a key part of the Regional Economic Strategy.

But it seems clear from the data gathered in this exercise that this fledgling sector will be responsive to support, and deliver a cost-effective return to on any investment.

### **City strengths**

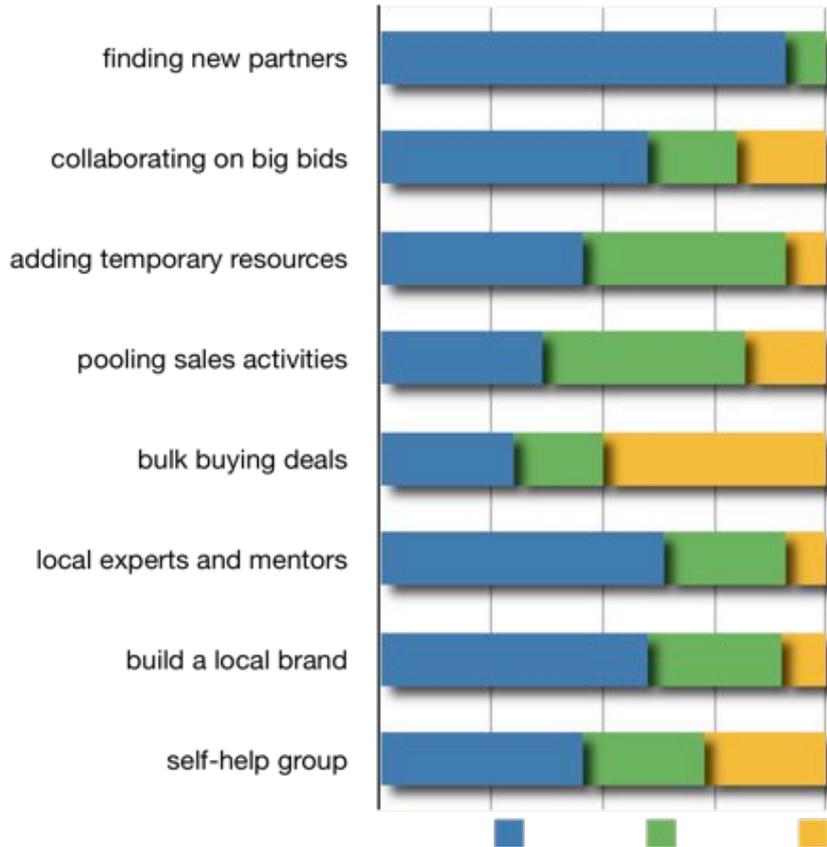
It is also important to realise that by far the greater proportion of the companies mapped are based in Norwich. Rises in private sector knowledge-intensive employment have not tended to lead to increased productivity in the medium-sized cities. Many medium-sized cities – including Norwich, Exeter and Ipswich – accounted for a smaller share of regional GVA in 2006 than in 1995. This may be due to less productive functions within the private knowledge-intensive sectors locating within the medium-sized cities, for example back office functions within the professional services sector. The skills profile of many medium-sized cities, with relatively high levels of low or no skills, also suggests the people working in the knowledge-intensive industries are working in lower level occupations. This suggests that there is more that can be done in these cities to capitalise upon private sector growth they have experienced.

Without the critical mass of a large city, medium-sized cities may struggle unless they can develop as a services hub attracting labour from the wider city region. Skills are the key determinant of how well medium-sized cities have performed in the recession: the lower the skills profile of a city, the worse it has been affected by the recession. Cities such as Cambridge, Oxford and Brighton with a large proportion of the population who are highly skilled (those with a degree) have seen lower increases in unemployment.

**Norwich University College of the Arts is using funding from the HEFCE Economic Challenge Investment Fund to develop a mentoring scheme to assist graduates and others to enter the creative industries. How can this be extended to incorporate the more technological needs of the digital sector?**

### Partner to succeed

The survey also indicated what specific support activities were seen to be immediately useful to the sub-sector:



Best use of business networks Yes Uncertain No Source: survey

From these answers, we can see that partnering/collaboration is the most important benefit, closely followed by finding and engaging with local experts and mentors, and then building that local brand.

We would suggest that these ‘needs’ align well with the description of the *Solutions for Business Business Collaboration Networks* product:

Collaboration networks typically provide facilitated opportunities for businesses to collaborate together to develop and pursue market opportunities which they would be unable to do on their own. They have been established or will be established for identified growth sectors, markets or technologies within the English regions.

Collaboration networks will be developed and facilitated by appropriate organisations in line with priorities in Regional Economic Strategies

**What does it aim to achieve?**

This product will encourage collaboration and the sharing of best practice between businesses operating in key regional sectors, markets, and

technologies to exploit opportunities that stimulate and accelerate economic growth.

### **Who's eligible?**

Businesses will be able to join a network, where one is available, that is relevant to the sector, market or technology they operate within or look to move into. The composition of a network will depend upon its focus and the sector/market/technology it is representing. Eligible businesses will primarily be small and medium sized firms, although some networks will have more large firm participants than others.

The Solutions for Business brand identity serves two main purposes:

- to stand out as representing publicly-funded business support so businesses can easily recognise the government's Solutions for Business business support offer; and
- to give a structure to the complex partner relationships by allowing partners to co-brand in a way that makes sense to the customer.

Specifically, the Solutions for Business brand offers 29 'pre-specified' products available to businesses. These products can help with accessing finance, innovation, research and development, training and skills, exporting and overseas trade and resource efficiency, including low carbon and are provided by a range of respected public sector providers such as government departments and their agencies, Regional Development Agencies and Local Authorities.

In the SfB portfolio, there are two types of Network:

### **Networking for Innovation**

- Intermediaries are funded to help businesses build relationships with other businesses, intermediaries and knowledge base institutions (e.g. Higher Education Institutions) to develop and exploit new ideas.

### **Business Collaboration Networks**

- Intermediaries facilitate opportunities for businesses to collaborate on projects they would have been unable to pursue alone.

As mentioned above, the 'user demand' fits well with the Business Collaboration Network product.

### **The economic development agenda**

Networks and/or support groups affect the local economy in three ways: first, by increasing the productivity of companies based in the area; second, by driving the direction and pace of innovation; and third, by stimulating the formation of new businesses within the 'cluster'.

Geographic, cultural, and institutional proximity facilitated and magnified by the network provides companies with special access, closer relationships, better information, powerful incentives, and other advantages that are difficult to gain from a distance. The more complex, knowledge-based, and dynamic the world economy becomes, the more this is true. Competitive advantage lies increasingly in local things - knowledge, relationships, and motivation - that distant rivals cannot replicate. Collaboration, as an example, leverages all three aspects to great commercial benefit.



### Digital Partners Norfolk

Our proposal therefore is to investigate the creation of a support network for the emerging digital sector in Norfolk: a network which will provide four main elements to its customer companies

- Encouragement for collaborative working for all its members including support for bidding for tenders, sharing of resources, cooperative purchasing, common tools and processes
- Development of local skills training in line with the present and future needs of the members, including the development and support of local providers both public and private sector

- Branding, positioning and marketing the specialist combined strengths of the members nationally and internationally
- “Horizon scanning” of new developments and trends and advice to members on how to best to gear up to exploit them

As the network develops, then additional services could be offered. These would include:

- Enterprise coaching and mentoring including a database of potential consultants and non-executive directors to help with business growth and development
- Joint initiatives for showcase participation in national and international events
- Regional promotion of Norfolk as a centre for digital technology and competences
- Management of incubator space for new starts in the digital sector
- Development of strong linkages with customer bases internationally, for example, financial sector firms in Germany
- Organisation of trade missions
- Creation of a knowledgebase of best practice, tools, business models, competitive landscape, etc in new and emerging application areas to enable members to make informed business decisions
- Close collaboration with the University of East Anglia and Norwich University College of the Arts as well as local further education colleges including graduate enterprise support and technology transfer
- National and international events held in Norfolk to position the county as a digital hub

### The business model

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It is highly unlikely that the existing companies within the sector – which is ill-defined and non-coherent at the moment – would be able to fund now or in the short-term any sort of coordination activities, let alone a network with even a part-time secretariat. Therefore, if the county wishes to take advantage of the situation that we have defined in this report, several years of public funding need to be allocated.

We strongly suggest that a model is developed in conjunction with all stakeholders to ensure that there will be the required degree of support for future sustainability.

Typically, funding in the region of between £50,000 and £120,000 per year is required to set up and develop an effective secretariat. Some sponsorship may be possible, and modest membership fees should be charged.

Typical costs for networking activities are given below.

Typical Benefit to a member	Cost per month	Value
Online profile	£15	Website offers high optimisation, ranking the member high on Google listings for increase web traffic and leads
Google map		Geographic mapping of all members by category to include click through and direct communication via the website
Post news and articles online	£30	Raising profile and reputation as industry leader. High optimisation bringing articles to top of Google listings.
Enews	£560	Regular update of free /member discount on support specifically aimed at high growth companies. Opportunities to promote member's success, sent to thousands of businesses and stakeholders.
Monthly speaker events	Up to £3,000	Inspiration and knowledge from high calibre business people, networking with like-minded people for peer support, mentoring, opportunities for new business, collaboration and suppliers. Personal development opportunities to grow your team. Guest tickets allowed for building rapport with clients.
Innovation seminars	£1,700	Inside look at peer businesses showing exceptional levels of innovation- opportunities for collaboration and industry networking. Supported platform to showcase in front of discerning business.
Business Clinics	£500	1 to 1 clinics from specialists to address challenges and barriers to growth ie online marketing, IP, access to finance, managing change
Coaching and mentoring	£1200 upwards	Industry savvy experts to help both with technological issues and business and management. Mentor management system required
Ambassadors	£5000	Management of senior industry people to "evangelise" and lobby locally and nationally to increase awareness of the sector
Specialist training/workshops	£2-3000	Highly specialist training. Opportunity to share best practice and network
Online showcases	£300	Demonstration of products, services and competences. Potential to include matchmaking opportunities and full enquiry handling
Collaboration tools	£2200	Online application to provide communications, document repository, basic project management tools. Also provides a very useful monitoring device to ensure projects are moving ahead and that all opportunities are taken
Marketing and training support for exhibition.	£1,000	Specialist support for indentifying the right exhibitions to attend, preparation of marketing collateral, networking and setting up sales meetings.
Introductions	£50	Third party facilitated introductions between members with complementary or shared objectives stimulate opportunities

		for collaboration, new business partnerships and procurement opportunities.
Innovation Conference	£30,000	Top quality speakers, opportunity for 1 to 1 meetings with leading industry figures, specialist workshops and discounted exhibition space
Education outreach	£30,000	Programme for graduate engagement Programme for schools engagement Programme for further education/NVQ engagement

## Critical Success Factors

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The critical success factors for this network can be summarised as follows:

- Effective engagement and collaboration with existing business support providers and supporters
- Effective communications with good scope and reach, to ensure all elements of the prospective 'digital' audience are both attracted to the network and also understand its value and objectives
- High-quality 'animation', content and delivery in order to gain attention and trust, resulting in a high reputation for the network and subsequent collaborative and resource-intensive activities
- A long-term approach that builds relationships and trust with a very diverse community
- Close working and collaboration with existing and delivery support providers, including Business Link, to overcome any issues of ownership or unilateralism
- A structured yet flexible signposting and introductory service to ensure that the essential first steps towards collaboration/partnering are effective, rewarding and businesslike
- Continual relationship monitoring and maintenance to build longer-term commitment from all members of the network on all aspects of business support and growth
- Access to a range of high-quality specialist services and support, potentially including those outside the sub region, to maximise growth
- Tools and encouragement to support effective network communications, skills and knowledge transfer, and informal and formal collaboration
- A knowledgeable, approachable, and outgoing network management team which spends the maximum amount of time working with and supporting network members
- A lively and comprehensive Internet presence which acts as a 'must-visit' destination for all members and potential members

## Outcomes and outputs

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Although it is premature to try to define specific economic development outputs that may be achieved through an effective network for the Norfolk digital sector, it is worth noting some of the outputs that have been achieved in the county by similar networking initiatives.

Based on knowledge of the Norfolk Network's achievements, it is likely that over a three-year period the following outputs could be delivered:

- 120 businesses assisted to improve their performance;
- 300 people assisted with skills development;
- 90 one-to-one business clinics to increase the sustainability and growth of members' businesses;
- 30 jobs safeguarded

it would be difficult to claim that a managed network or group could be directly responsible for the formation of new businesses, but certainly there would be a considerable influence exerted by the network to support new entrepreneurs. If the network also extended into managing a small digital sector incubator, however, then it would be possible to claim for several new starts.

Through a variety and breadth of support and advice activities, the Network can raise business performance, innovation and skills development, and create a vibrant environment for a cross-fertilisation of ideas and pooling of talent, to provide new business ideas and opportunities.

### **Sustainability – an exit strategy**

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All networks should work towards sustainability: the Norfolk Network has achieved this but it took nearly seven years with some support from EEDA, Norwich and Norfolk Councils, and commercial sponsors before it was able to be fully self-funding.

There are several possibilities to factor in for supporting the network after the funding stops.

- Further public sector funding
- Mix of public and private sector funding

Based on success, we feel confident that some, if not full, public sector funding will be forthcoming. As the network develops, it could experiment with increasing the amount of 'cluster funding' – that is, the money directly from the beneficiaries of the network, especially those returning for more support/resources. It could also investigate the opportunity provided by Innovation Vouchers, to be used to 'buy' knowledge from FEIs and HEIs in the county and beyond to support the network and cluster projects.

Additionally, it could look to other public sources, for example funds to support sectors or manufacturing specific activities or proof of concept funding. These could be mixed into a single pot for continuation.

To actively seek private sector funding is essential: not necessarily from the beneficiaries but from other organisations such as major local corporates (which are not numerous).

We envisage that this network could become a major county-wide resource for digital sector revenue growth, supporting micro-enterprises and SMEs with world class marketing and business development. Allied to a 'Digital Norfolk' brand, the network's resources could be 'spun-out' into a self-supporting store that would be offered to all local digital (and creative and ICT) companies, at varying costs, and in varying levels, to suit needs and budgets.

Investment to set up this 'spin-out' would be sought from public and private sources, and investors, such as SMEs and local councils, would access the 'value creation' services at highly preferential rates.

Additionally, if the continuing project was set-up as a social enterprise, funds could be sought from local CDFIs and charities.

By incubating the creation of a digital business development infrastructure through this network, it could not only create permanent high value jobs in the county but also deliver a vital component of business growth, with considerable economies of scale, on a not-for-profit basis.

### **Evolution of a non-funded model**

However, if the development of this innovative social enterprise is not possible, and if no funding is attained, or demand drops, then the evolution of the existing collaboration network into a different type of support platform may need to be encouraged. Firstly, the dynamics of the network and the interactions of its members can be analysed in order to assess its orientation toward a different model of sustainability. Secondly, the potential durability and the roles of key members of the network can be established to determine the management and usage of this model.

A managed evolution into a member-run, or 'self-drive' model, enables a transition toward a sustainable, but less ambitious, resource.

### **Tools and processes for 'self drive'**

Various tools used for the funded network can be provided on a pay-as-you-go basis, as well as resources such as check lists, templates and documentation to support collaboration, and news and information feeds for business opportunities. Access to the membership can also be 'rented'.

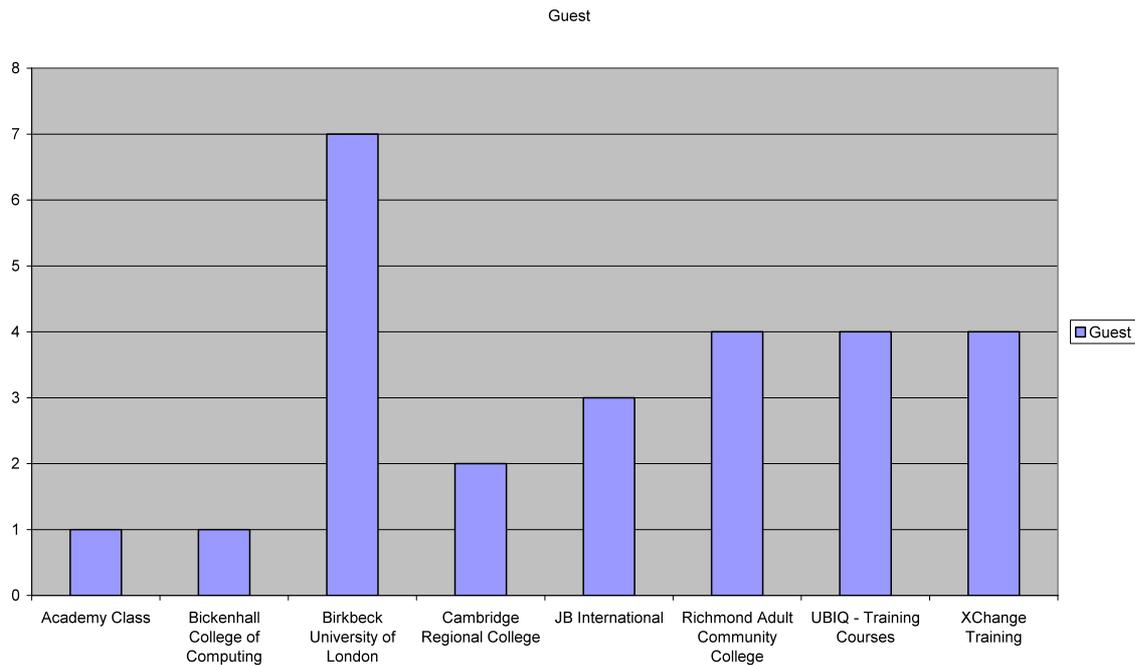
## Annex 1

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### Trainagain – On line publishing of industry Courses – an analysis of demand

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Trainagain will continue to input web development and related courses on to its live exchange website and we'll monitor demand through "click" analysis. Below are some examples of the analysis which will be available on a monthly basis for the client:



EventName	Provider	Count of DateCreated
<b>3ds Max Advanced</b>		<b>1</b>
	Academy Class	1
<b>Acrobat Introduction</b>		<b>3</b>
	Premier it	3
<b>Adobe Flash Cs4 Actionsript Introduction - London</b>		<b>1</b>
	XChange Training	1
<b>Adobe Flash Cs4 Masterclass - London</b>		<b>2</b>
	XChange Training	2
<b>Adobe Flash Cs4 Rich Content Creation Introduction - London</b>		<b>3</b>
	XChange Training	3
<b>Advanced Dreamweaver Training</b>		<b>2</b>
	Silicon Beach Training	2
<b>AIX Basics</b>		<b>1</b>
	Gb Direct	1
<b>Business Intelligence With Sql Server 2005 / 2008</b>		<b>3</b>
	JB International	3
<b>Business Intelligence With Sql Server 2005 / 2008)</b>		<b>1</b>
	JB International	1
<b>Cascading Style Sheets (CSS) for Web Page Development: Hands-on</b>		<b>2</b>
	Learning Tree International	2
<b>Check Point Security Administration Ngx Iii (R65)</b>		<b>1</b>
	Gb Direct	1
<b>Developing Multimedia Assets Using Fireworks and Flash</b>		<b>2</b>
	Birkbeck University of London	2
<b>Dreamweaver CS3 Introduction (Intensive)</b>		<b>2</b>
	Richmond Adult Community College	2
<b>Dreamweaver Training</b>		<b>1</b>
	Silicon Beach Training	1
<b>Introduction to ASP.NET 3.5 With Ajax and Linq</b>		<b>2</b>
	JB International	2
<b>Introduction to Dreamweaver Cs4</b>		<b>6</b>
	UBIQ - Training Courses	6
<b>Java Programming Scjp Certification</b>		<b>4</b>
	London School of Computer Education	4
<b>JavaScript</b>		<b>2</b>
	Birkbeck University of London	2
<b>Linux for Beginners</b>		<b>2</b>
	Norwich it Courses	2
<b>Microsoft Certified System Engineer(mcse)</b>		<b>3</b>
	Bickenhall College of Computing	3
<b>SharePoint 2007 (MOSS 2007) Application Development</b>		<b>1</b>
	JB International	1
<b>SQL Server 2005 / Sql Server 2008 Comprehensive Programming</b>		<b>1</b>
	JB International	1
<b>Taking Timed Tasks for Research Methods for Psychology</b>		<b>3</b>
	Birkbeck University of London	3

## Annex 2

### Courses on Trainagain 15<sup>th</sup> March 2010

For further details and the most up to date schedule click [Here](#)

Count of Date Created	
Event Name	Total
.NET 2.0 & 3.5 Introduction to Programming in Visual Studio 2008 With C# & Visual	2
2011 - Troubleshooting Ms Exchange Server 2003	1
2071 - Querying Ms Sql Server 2000 With Transact Sql	2
2124 - Programming With C#	9
2261 - Supporting Users Running Microsoft Windows Xp Desktop Operating Systems	5
2262 - Supporting Users Running Applications on Microsoft Windows Xp	4
2273 - Managing and Maintaining Ms Windows Server 2003 Environment	8
2277 - Implementing Managing and Maintaining a Ms Windows Server 2003 Network Infras - Network Services	2
2278 - Planning and Maintaining a MS Windows Server 2003 Network Infrastructure	2
2279 - Planning Implementing and Maintaining a MS Windows Server 2003 Active Directory Infrastructure	3
2310 - Developing Web Applications Using Microsoft Visual Studio 2008	7
2349 - Programming With the Microsoft .NET Framework (Microsoft Visual C# .net)	9
2400 - Implementing and Managing MS Exchange Server 2003	5
2555 - Developing Microsoft .NET Applications for Windows Using Visual C Sharp .NET	9
2576 - Implementing and Administering Internet Information Services (IIS) 6.0	3
2823 - Implementing and Administering Security in a Microsoft Windows Server 2003 Network	2
2933 - Developing Business Process and Integration Solutions Using MS Biztalk Server 2006	3
2956 - Core Foundations of Microsoft .NET 2.0 Development	9
2957 - Advanced Foundations of MS .NET 2.0 Development	2
3938 - Updating Your Skills From MS Exchange 2000 Server or MS Exchange Server 2003 to MS Exchange Server 2007	5

3ds Max - Jumpstart	2
4994 - Introduction to Programming MS .NET Applications With MS Visual Studio 2005	9
4995 - Programming With the MS .NET Framework Using MS Visual Studio 2005	8
5047 - Introduction to Installing and Managing Microsoft Exchange Server 2007	7
5049 - Managing Messaging Security Using Microsoft Exchange Server 2007	3
5050 - Recovering Messaging Servers and Databases Using Microsoft Exchange Server 2007	4
5051 - Monitoring and Troubleshooting Microsoft Exchange Server 2007	2
5053 - Designing a Messaging Infrastructure Using MS Exchange Server 2007	2
5054 - Designing a High Availability Messaging Solution Using Microsoft Exchange Server 2007	2
6418 - Deploying Windows Server 2008	2
6419 - Configuring Managing and Maintaining Windows Server 2008 Servers	2
6420 - Fundamentals of Windows Server 2008 Network Infrastructure and Application Platform	1
6421 - Configuring and Troubleshooting Windows Server 2008 Network Infrastructure	5
6425 - Configuring Windows Server 2008 Active Directory Domain Services	3
6426 - Configuring Identity and Access Solutions With Windows Server 2008 Active Directory	6
6437 - Designing a Windows Server 2008 Applications Infrastructure	2
6451 - Planning Deploying and Managing Microsoft Systems Center Configuration Manager 2007	4
A+ Computer Maintenance and Installation	1
Acrobat Introduction	3
Active Server Pages (ASP) Advanced	1
Administering Cisco Unified Communications Manager and Cisco Unified Messaging V6 (ACCMU)	1
Adobe Acrobat 9 Essentials	2
Adobe Certified Expert: Flash CS3	1
Adobe Creative Suite 4 Web Introduction Masterclass - London	3
Adobe Dreamweaver Cs4 Introduction Masterclass With Aca Exam - London	2
Adobe Dreamweaver Cs4 Web Development Three Day Introduction - London	3
Adobe Dreamweaver Cs4 Web Essentials One Day Introduction - London	2

Adobe Flash Cs4 Actionscript Advanced - London	2
Adobe Flash Cs4 Actionscript Introduction - London	2
Adobe Flash Cs4 Masterclass - London	2
Adobe Flash Cs4 Rich Content Creation Introduction - London	5
Adv.Photoshop Cs4 - Design Techniques	3
Advanced ASP.NET 3.5 Best Practices + Ajax Silverlight Linq Wcf	2
Advanced C++ Development Techniques	3
Advanced C++ Programming	2
Advanced CSS	1
Advanced Dreamweaver Cs4	1
Advanced Dreamweaver Training	2
Advanced Google Adwords	1
Advanced Illustrator Cs4	2
Advanced InDesign Cs4	1
Advanced Linux	1
Advanced MYSQL	1
Advanced Perl	1
Advanced PHP	1
Advanced Wordpress Training - Custom Themes	2
Agile Awareness	4
AIX Basics	13
An Introduction to Programming Using C#	1
An Introduction to Web Hosting	1
Animation Beyond the Basics Using Flash	1
Apache Web Server	6
AppSense Version 8	4
Blue Coat Certified Proxysg Professional	1

Branding and Customising Sites With Sharepoint® Designer: Hands-on	1
Building Data-driven Sharepoint® Applications With Sharepoint® Designer: Hands-on	2
Building Web Applications Using MYSQL and PHP	1
Business Intelligence With Sql Server 2005 / 2008	2
Business Intelligence With Sql Server 2005 / 2008)	2
C Programming	1
C Programming College Certificate	1
C# Programming	1
C++ Programming	2
C++ Programming Language	1
Cascading Style Sheets (CSS) for Web Page Development: Hands-on	3
Cascading Style Sheets Introduction - London	2
Certified Internet Webmaster (e-commerce Designer)	1
CISCO Design & Support Computer Networks (CCNA4) Advanced	1
CISCO it Essentials - Part 1	1
CISCO Networking Academy CCNA 4	2
CISCO Routing & Switching in the Enterprise (CCNA 3) Advanced	1
Cisco Security Monitoring Analysis and Response System V 3.0	1
Complete Adobe Illustrator	1
Complete Adobe InDesign	1
Complete Adobe Photoshop	2
Complete Dreamweaver Web Development	2
Complete Macromedia Flash	3
CompTIA A+ Essentials Intermediate	1
Creating Accessible Websites	1
Creating Flash Banners	2
Creating HTML Emails	7

Crystal Reports Introduction	1
CSS Training	1
Designing and Building Great Web Pages: Hands-on	3
Developing a Web Site: Hands-on	2
Developing Java Web Applications: Hands-on	1
Developing Multimedia Assets Using Fireworks and Flash	2
Dreamweaver	2
Dreamweaver Cascading Style Sheets: Introductory	1
Dreamweaver CS3 Introduction (Intensive)	1
Dreamweaver Introduction	5
Dreamweaver Training	9
Dreamweaver's Spry Framework for Ajax " Creating Interactive Web Pages	1
Drupal for Programmers	1
Edditing a Website With Dreamweaver	2
Enterprise Java - J2ee for Java Programmers	1
Flash Advanced	2
Flash Advnaced Animation Techniques	1
Flash Introduction	1
Flash Training	4
Fundamental Actionscripting As3	1
Getting Started With HTML	4
Getting Started With Photoshop Cs4	2
Google Adwords	2
Hands-on CCNA Certification	21
Hands-on CCNA Certification 4 Day Fast Track	3
HTML Advanced	2
HTML and Web Introduction	2

HTML Email Newsletters	2
HTML Introduction	3
HTML Training	1
Implementing Cisco Intrusion Prevention System V 6.0	1
Implementing Cisco Ios Network Security (IINS) V 1.0	2
Implementing Cisco Ios Unified Communications (IIUC) V 1.0	1
Implementing Mpls V 2.2	2
Implementing Secure Converged Wide Area Networks V 1.0	1
InDesign Advanced	2
InDesign Introduction	3
Interconnecting Cisco Network Devices Part 2	3
Interconnecting Cisco Network Devices Part 1	4
Internet Marketing Training Courses	1
Introduction to PHP & My Sql	3
Introduction to ASP.NET 3.5 With Ajax and Linq	1
Introduction to ASP.NET 3.5 With Linq and Ajax	1
Introduction to Computer Security for SMES	1
Introduction to CSS	5
Introduction to Dreamweaver Cs4	4
Introduction to Drupal	4
Introduction to Flash Cs4	1
Introduction to Illustrator Cs4	4
Introduction to InDesign Cs4	5
Introduction to Photoshop Cs4	6
Introduction to PHP for Web Development: Hands-on	1
ITIL® V2-v3 Foundation Bridge	1
ITIL® V3 Foundation	9

Java - Advanced Programming Techniques Workshop	2
Java Comprehensive Intro - Programming With Java Se	2
Java Ee- Enterprise Java Course Overview (J2EE / Jee)	2
Java for Beginners	1
Java Programming Scjp Certification	6
JavaScript	1
JavaScript: Introductory	1
Joomla Training	3
Knowledge Discovery & Datamining (two Day Course)	1
Linux Advanced Shell Programming Tools	3
Linux Bash Shell Programming	2
Linux Essential (LPI)	3
Linux for Beginners	1
Linux for the Technically Minded	1
Linux Fundamentals	4
Linux Introduction	4
Linux Security	1
Linux Shell Programming	6
MCITP: Windows 2008 Mcitp: Enterprise Administrator	6
Microsoft Access Vba Programming	1
Microsoft Certified System Engineer(mcse)	5
Microsoft Certified Technology Specialist (MCTS)	5
Microsoft Frontpage Introduction	1
Microsoft Mcp/windows/server/network - Microsoft Office Specialist	1
Microsoft Windows Server 2003 Administration	1
Multimedia Web Programming Using Flash and Actionscript	1
MYSQL for Beginners	1

PC Servicing Module 1 - NCFE Certificate	2
PC Servicing Module 2 - NCFE Certificate	1
PC Servicing Module 3 - NCFE Certificate	1
Perl for Beginners	1
Perl Programming	3
PhotoShop Advanced	1
Photoshop Cs4 for Web - Adv Technique	4
PhotoShop Introduction	1
Photoshop Training for Web Graphics	4
PHP for Beginners	1
PostgreSQL for Beginners	1
Practical PHP	1
RapidWeaver Advanced Training	1
RapidWeaver Training	1
Ruby for Beginners and Introduction to Rails	1
SEO Search Engine Optimisation Training	1
SharePoint 2007 (MOSS 2007) Application Development	2
SharePoint 2007 for Power Users and Non-developers	2
SharePoint® 2007 Technologies: a Comprehensive Hands-on Introduction	1
SOA for Architects & Managers:	2
SOA for Developers & Designers	2
SQL Database Design & Information Retrieval (generic Sql)	1
SQL Server 2005 & 2008 Database Administration	1
SQL Server 2005 / Sql Server 2008 Analysis Services (SSAS) & Integration Services (SSIS)	2
SQL Server 2005 / Sql Server 2008 Comprehensive Dbâ & Programming Upgrade	2
SQL Server 2005 / Sql Server 2008 Comprehensive Programming	2
SQL Server 2005 / Sql Server 2008 Reporting Services (SSRS)	2

The Art of Web Project Management	1
UML for Beginners	1
Using Red Hat Linux	3
VB Net	1
Visual Basic	1
Visual Basic Advanced	1
Visual C++ and Mfc Training	2
VMware Vsphere: Fast Track	2
VMware Vsphere: What's New	3
Web Database Techniques	1
Web Design Training	4
Web Design Week	4
Web Page Creation Using Adobe Dreamweaver	2
Web Programming Using PHP	2
Web Technologies Diploma - CS3	1
Website Visibility & Search Engine Optimisation	1
Welding - Advanced British Standard 4872	1
WordPress Training	3
Writing for the Web: Hands-on Skills for Reaching an Online Audience	2
XHTML Javascript and CSS	1
XML Rss and Xul (Advanced Web Technology)	1
(blank)	5
Grand Total	590

## Annex 2

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### Norfolk Network 100 members

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Anglia Webmaster	DN-22	Laslett.com
Animate design	D.sign.IT	Logic Red Web Design
AWD Affordable web design	Durus New media	logolauncher.com
Beauchamp Partnership	EasyWhiz.com	Lovell Fuller
Binarydrive	ee-scape.net ltd	Luminas Limited
Bluefusion design	Empresa Ltd	Martin Payne Web Design
Business Webpage ltd	Eweb Sites	MB Internet Development
Cameron creative	Face new media	mdmello.com
Carefree Computing	Fdezine Web design	NCSL
Celoris Web design	Frabjous Day Limited	Netapproach Webdesign
Chic systems	Freeford FX	NewStar Internet
City webs	Gaydorg Web design	Nige Web design
CJD web design	Harlequin Consultants	NooZu.com
contact media services	Hayes Computing Solutions	Norfolk Computer Systems LLP
copernicus digital media	Hitgo digital media	Norwich Design agency
Cpounty2county	HogIT.com	Originalworkds UK Limited
Craig Champion web development	Idealsite	Pacific Limited
Creative sponge	Idweb	PC Assists Online
Creospace	IfOnly Communications	PDL-Services
Cribellum	InTouch Systems	Philips Computing Services (Norwich) Limited
Crimnson Monkey	Iris Internet Technologies	pinkblob
D W Websites	ISAI	Pixel Weaver
Da Vinci Total Business Solutions	Jigsaw Website design	Premier Links Ltd
Datadrum	JK Computer Solutions	Press Point
Dawson Rowland	Joe Herbert	Product Marketing
Design Fever	Jon Jackson Graphic and web design	Prophecy Designs
Design-a-host.com	KINET e-Solutions	Provide Media (S2 Solutions Limited)
Digital Phase	Knight Designs	PSLWeb.co.uk (Pearlway Systems Limited)
Ding dong design	Knox Professional Web Design	Purple Tuesday

Remark Design Limited	St George design	Turton CMS
RLS Computer Services	studio create	UK Multimedia
RNHK Basic Web Design and Media	Studio Soup Ltd	UK Site Pro
Safe Haven Services	Studio TwentyOne	UK Website Designer
Salsa Shark	Suburban Media Ltd	Vantech Media
Scenicdream Ltd	Sycero	Vinixi Consulting Ltd
Sgt IT Services	Syncro-systems	Virtual Web Designs
SILENT Design	SysComm International	WDT Fusion
Silent IT Solutions	TCS Hosting	Web Designers
SilverLine Web Design	TDS Website design	Web devise
Smmtec	The CK Group	WebGrafix
Sintec Ltd	The Interactive Workshop	Website Design Box
SLA Associates Limited	The Main Domain Internet	Websorcerers
Sound Wave	Thyme Designs	Wensum.net
Status Media Ltd	Tim O'Shea	Wizards Online
Steele Media, Marketing and Design	Tomorrownight.com	WVSD
	Triffick Ltd	zoomzoom ltd (closed)
	Trippnology	

## Sources

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