

Get Started with WTE

Digital Opportunities Road Map

This Digital Opportunities Roadmap was designed as a guidance resource for those who are interested in setting up their own business or looking for employment opportunities in the technology and entrepreneurial sectors. It will provide you with introductory information on the possibilities available in these sectors and the skills you will need to fully reap the benefits of the possible growth in these innovative sectors.

The GEM Report 2010 highlights that fewer women are actively engaging in entrepreneurial activities, and that fewer women have the confidence to become entrepreneurs. This report also sights that 2010 had few opportunities and a poor economic environment for fostering entrepreneurial enterprises. Despite this pessimism, the report also offers some positivity for the future of Irish entrepreneurs, as a higher proportion of early stage entrepreneurs are becoming more ambitious and innovative in their business concepts. Early stage entrepreneurs are also harnessing some of the resources that WTE advocates such as, online selling and online marketing in order to boost sales and exports for their enterprise. While possibilities for starting businesses in Ireland are challenging in today's economic climate, the opportunities to create a truly innovative enterprise, by exploiting the use of technology to start and promote your business, are endless. For this reason, the WTE training programme brings together modules in technology and in entrepreneurship to give you the complete skill set to create your own innovative and successful business.

Becoming an IT entrepreneur requires that you have acquired significant knowledge of the IT industry and IT programmes. Further to having these skills, you need to be able to demonstrate your abilities in a professional capacity, while also possessing the management skills to run a successful business. Self employment in the IT field can require a more flexible working day (or night). It is also useful to keep in mind that certain jobs will have a set fee as opposed to an hourly rate. So for example, if you are a website developer and you are tasked with the responsibility of creating a website for a local business, you will most likely have agreed a flat rate for the website, irrespective of how many hours it takes you to create it.

The WTE course not only offers you an introduction to the practical applications of how to use technology, it also offers insights into the endless possibilities that a career in technology can present to you. As well as using technology in a practical manner to conduct research on the internet, or to network with your new business clients, it is



also possible to find yourself using technology as the basis for operating your business. Through the use of web design, and online marketing, you can create, run and market your e-business without having to leave your home. Thanks to technology you can operate a fully viable and successful business without ever having to set up a physical shop or office, without looking for premises or having to worry about paying rent. In this regard, technology is revolutionizing the way that enterprises are created and operate. For this reason, WTE aims to furnish you with the skills to benefit from the endless possibilities that technology permits us.

Taking all this into account, setting up a business or going on to study technology in college or university requires a huge commitment, and it is important to remember that it is not suited to everyone. If you find that you have a keen interest in both technology and entrepreneurship, with the right skill set, it could be a very successful, lucrative combination for you. If this is an area you are interested in the web design module should be of particular interest to you. Alternatively you could look into a more detailed course, or even an accredited course, available in your locality, online or through distance learning.

There are numerous supports and courses available to help you explore the technology sector further. This Digital Opportunities Road Map (DORM) is a guidance tool available for all WTE participants. The need for this roadmap has arisen as one of the most pressing issues facing the ICT sector in Ireland is the provision of an appropriately educated workforce. This resource aims to tackle the skills deficit which is evident in the Irish technology sector by highlighting potential market opportunities in the technology and entrepreneurship fields and by emphasising the skills required to avail of these opportunities. The following section details the possibilities available and the skills needed under 4 job categories. It will also provide information on courses which will help you to avail of these job opportunities and where to go to find out more information.

Secretarial & Administration

The overall role of secretarial and administrative persons in the workplace is to store, retrieve, and collate information for distribution to staff members and customers, all the while ensuring the efficient running of the organisation

Job Description

- ◆ Answering telephone / screening calls
- ◆ Meeting and greeting candidates and clients
- ◆ Screening candidates to ensure details are passed to correct staff member
- ◆ Typing reports, administrative support for the CEO
- ◆ Supporting sales with mail-shots, marketing activity etc
- ◆ Ordering Stationary / managing invoices folder
- ◆ General admin filing, faxing and photocopying
- ◆ Coffee/teas for clients when required
- ◆ Responsible for petty cash – balancing receipts
- ◆ Franking mail and taking to post office
- ◆ Providing point of first contact with Company and responding to customer calls to reception area
- ◆ Responsible for maintenance of reception area in a presentable condition
- ◆ Opening, date stamping and sorting all incoming post
- ◆ Filing of correspondence and reference library material
- ◆ Working on specific projects from time to time as requested by the Chief Executive Officer and or Programme Manager
- ◆ Maintaining databases, and managing out-going correspondence

Skills and Roles

Skills:

- ◆ Detailed knowledge of Microsoft Word, Excel and PowerPoint presentations
- ◆ Excellent communication and interpersonal skills
- ◆ Ability to research online and compile written reports

Roles:

- ◆ Organize meetings and events
- ◆ Exercise excellent time management skills
- ◆ Create and maintain appropriate filing systems

Career Opportunities

A Virtual Assistant is an entrepreneur who provides administrative and technical support to small businesses from their home. Clients benefit from this service by saving money on office space, running costs and employee related charges. Modern technology has made this job both reliable and economically feasible. Virtual Assistants usually work with other small or medium-sized businesses.

Secretarial or Administrative assistant within a company or organisation

Employment opportunities for administrative assistants are constantly arising. While there will not be huge growth in this sector, there will always be a reliable demand for administrators in all employment sectors.

There is the opportunity to develop the role of an administrator to incorporate web development and e-business skills, if you are interested in working in the creative IT sector, but perhaps are not too keen on becoming a website developer.

Opportunities are best suited to applicants with extensive knowledge of computer software applications as described in the skills section.

Find Out More!

[ECDL - European Computer Driving License](#)
Boyne Community School
[ECDL - European Computer Driving License - Start](#) Ashbourne Community School
[Computers](#)
Kells Community School
[Access National Learning Network](#)
Level
[Accounts - Sage 50 - Integrated](#)
Beaufort College
[Business Studies - Administration](#)
St. Oliver's Post Primary School Level 5
[Business Studies Secretarial](#)
Beaufort College Level 5 NFQ
[Computers - Microsoft Office Modules](#)
St. Peter's College
[Keyboard Skills - Typing](#)
Boyne Community School
[Photography & Photographic Techniques](#)
Dunshaughlin Community College
[Presentation Software](#)
Iona College

Multi Media Design

Multimedia designers integrate audio, animation, graphics and video into presentation for CDs, DVDs, television programmes and websites. They work for advertising agencies, television stations, Web development companies and other media companies that develop multimedia presentations. The designer in the multimedia industry creates designs for interactive programmes, internet sites, web sites and advertisements for educational, entertainment, business and other multimedia applications.

Job Description

Multimedia designers must be familiar with current computer programming languages (including C++, HTML and Java), hardware (both Macintosh and Microsoft products) and software (including Adobe Director, Adobe Dreamweaver, Adobe Flash, Adobe In Design, Adobe Illustrator, Adobe Photoshop, Apple Final Cut Pro, PowerPoint and Avid, to name but a few).

They should be able to multitask, with the ability to meet multiple deadlines for a number of projects simultaneously.

Multimedia designers must have a team-oriented attitude, with excellent interpersonal and communication skills.

They should be creative, analytical thinkers who can tell a story using all the tools currently available in the industry.

For a web and multimedia design role you will be working in a creative environment to deliver high quality flash banners, web designs and HTML emails and other digital visuals. You will also be doing some front-end web development (HTML/CSS/JavaScript).

Skills and Roles

Skills

- ◆ Having the ability to take information and marketing material and turning it into an attractive functioning website
- ◆ Designing a website's structural content – being able to plan the structure, appearance and content of a website
- ◆ Creating or editing images and graphics for website use
- ◆ Determining all coding requirements for creating a website. These include: e-commerce

capability, forms and specialized scripts

- ◆ PHP Web development skills
- ◆ Experience with Facebook Applications / FBML
- ◆ Experience building HTML emails that work across all popular email clients
- ◆ Experience in mobile design

Roles

- ◆ Coding websites using HTML and design software
- ◆ Posting completed websites to internet server using appropriate software
- ◆ Making changes to the website when directed by your client
- ◆ Submitting completed website to search engines

Career Opportunities

Opportunities continue to grow in this vibrant communications sector as businesses rely on quality web design and multimedia technologies to convey their message to establish the web presence of their business or to promote their e-business.

Enterprises also turn to the internet to aid in the marketing of their products or to boost sales. For this reason, there is significant growth potential in the website and multi-media design sector.

One of the main advantages of becoming a web designer is the variety of tasks you will undertake on each project and the satisfaction of having a completed product to show at the end of your work. A lot of work goes into building a website, and in this regard, many programmes need to be used in order to create a website. Therefore, as a web designer, no two days are alike. While you may spend one day working with Photoshop, creating logos and images for your website, the next day you could be working on drafting the content or working on databases until finally you work with Dreamweaver or HTML software and pull the completed website together.

Find Out More

[Digital Media - Introduction](#)

National Centre for Technology in Education
[Web Design](#)

Ashbourne Community School

[Web Design](#)

Dunshaughlin Community College Level 5

[Web Design](#)

O'Carolan College

[Web Design](#)

Ratoath College

[Computer Aided Design - CAD](#)

Ashbourne Community School

[Multimedia & Web Development](#)

Dunboyne College of Further Education Level 6

[Multimedia - Get More from Your Computers & Laptops](#)

Beaufort College

[Multimedia and Computers](#)

Dunboyne College of Further Education Level 5

[Excel for Intermediate Level](#)

Dunshaughlin Community College

[Computers - Intermediate](#)

Ashbourne Community School

Networks and Network Security

Network security consists of the provisions and policies adopted by the network administrator to prevent and monitor unauthorized access, misuse, modification, or denial of the computer network and network-accessible resources.

Job Description

- ◆ Diagnose hardware and software problems, and replace defective components.
- ◆ Perform data backups and recovery operations.
- ◆ Maintain and administer computer networks and related computing environments, including computer hardware, systems software, applications software, and all configurations.
- ◆ Plan, co-ordinate, and implement network security measures in order to protect data, software, and hardware.
- ◆ Operate master consoles in order to monitor the performance of computer systems and networks, and to coordinate computer network access and use.
- ◆ Perform routine network start-up and shutdown procedures and maintain control records
- ◆ Design, configure, and test computer hardware, networking software and operating system software.
- ◆ Recommend changes to improve systems and network configurations, and determine hardware or software
- ◆ Monitor network performance in order to determine whether adjustments need to be made.
- ◆ Load computer tapes and disks and install software and printer paper and forms
- ◆ Analyze equipment performance records in order to determine the need for repair or replacement.
- ◆ Maintain logs related to network functions, as well as maintenance and repair records.
- ◆ Research new technology, and implement it or recommend its implementation.
- ◆ Coordinate with vendors and with company personnel in order to facilitate purchases

Skills and Roles

Skills

- ◆ BS/MSc in Computer Science or equivalent qualification
- ◆ Experience in a network security role
- ◆ Detailed knowledge of network-based attacks and their mitigation
- ◆ Knowledge of network related protocols (e.g., TCP/IP, IPSEC, routing protocols, 802.1x)
- ◆ Strong scripting skills a significant plus (e.g. Python/Perl, shell scripting)

Roles

- ◆ Help enforce network security strategies and procedures
- ◆ Implement, monitor, and troubleshoot Juniper firewall filters, Cisco access lists, TACACS+, and other service provider network security features
- ◆ Develop and implement network DOS mitigation strategies and offer on-call response during security incidents
- ◆ Perform security reviews and audits

Career Opportunities

The largest employers in computer networking are telecommunication companies, large businesses, local governments and colleges.

Database administrators, network and computer systems administrators, network help desk support, PC hardware technician, network systems and data communication analysts and computer specialists are all job titles that you can aspire to having one day if this is the career for you.

Network personnel can find employment as technicians or analysts in colleges and universities, wired telecommunication carriers, transportation and distribution industries.

Find Out More

[Network Support & Computer Maintenance](#)

Beaufort College Level 5

[IT & Internet Security](#)

St. Fintina's Post Primary School

[Security Studies](#)

Dunboyne College of Further Education Level 5

[Computer Basics & Social Networking](#)

St. Peter's College

Systems Technical Support

Technical support officers are sometimes known as help desk operators, technicians, and maintenance engineers or applications support specialists. The work is as much about understanding how information systems are used as applying technical knowledge related to computer hardware or software.

Job Description

- ◆ Respond to customer enquiries, primarily via email and telephone
- ◆ Resolve customer technical issues through diligent research, reproduction, and troubleshooting
- ◆ Work directly with staff in quality assurance, engineering, sales, marketing, operations, and administration to resolve problems
- ◆ Provide training or assistance to junior staff
- ◆ Participate in testing alpha and beta products
- ◆ Installing and configuring computer hardware operating systems and applications
- ◆ Monitoring and maintaining computer systems and networks
- ◆ Troubleshooting system and network problems and diagnosing and solving hardware/software faults
- ◆ Testing and evaluating new technology
- ◆ Conducting electrical safety checks on computer equipment.

Skills and Roles

- ◆ Excellent knowledge of server hardware (including SCSI, RAID and I/O topology); A+ certification desired.
- ◆ Excellent knowledge of storage hardware (including Fibre channel, clustering, etc.)
- ◆ Advanced knowledge of networking (including WAN topology, mixed LAN/WAN operating system environments, DNS/WINS/DHCP, firewall solutions and network load balancing)

- ◆ Excellent working knowledge of at least 1 and advanced knowledge of at least 2 of the following: NT, W2K, Red Hat Linux, Exchange, SQL, IIS, Proxy, Apache, Squid, Send Mail, Clustering, Site Server, ASP, or XML.
- ◆ Basic working knowledge systems management (Vinca, HPOV, CAUnicenter, Tivoli, TNG, Marathon)
- ◆ Proven track record in managing multiple escalations with effective follow-up/follow-through and timely documentation.
- ◆ Installing and configuring computer hardware operating systems and applications
- ◆ Monitoring and maintaining computer systems and networks
- ◆ Troubleshooting system and network problems and diagnosing and solving hardware and software faults
- ◆ Establishing a good working relationship with customers and other professionals
- ◆ Conducting electrical safety checks on computer equipment
- ◆ Excellent customer focus and communication skills
- ◆ Proven track record in maintaining and enhancing skills levels according to future technology trends

Career Opportunities

An IT technician is valuable in any business, whether private or public

With the increasing use and omnipresence of modern technology, there is a steady growth in companies specialising in providing technical support to companies, organisations and SMEs

Employment in IT and computer service activities is set to continue to grow. In Ireland employment in this field has grown by over 65% between 2001 and 2010 (Forfás Annual Employment Survey, 2010)

Find Out More

[Network Support & Computer Maintenance](#)

Beaufort College Level 5

[IT & Internet Security](#)

St. Fintina's Post Primary School

[Security Studies](#)

Dunboyne College of Further Education Level 5

[Computer Basics & Social Networking](#)

St. Peter's College