



THEME ALLOCATED: Technology: Motivation

TITLE OF

THE WEBQUEST: Computational Re-Thinking

INTRODUCTION

In the 21st century, technology has become a prominent staple of our everyday lives. Careers in technology are becoming increasingly important as many jobs are becoming more technologically reliant and ultimately, dependent. Careers in technology are the basis of what is to come within the future labour market; where everything aims to be handled and programmed through software.

Careers in technology offer a multitude of job options in today's day and age. The development of Information Technology has brought with it a spectrum of opportunities within the labour market. This industry often offers a wide array of opportunities whereby you have the possibility to work within a company or to be self-employed. The technology sector allows you to develop yourself in many fields and incorporates job titles such as; software developer, IT manager, web developer, graphic designer database administrator, computer systems analyst, computer network architect among many more.

Throughout history, women have played a fundamental role in the development of technology that we see in today's world. Did you know that in the 19th century, Ada Lovelace, was the world's first computer programmer? Women hold a significant contribution in the world of technology and have paved the way for the digital advancements of the future (The Independent, 2018).

According to the Central Statistics Office in Ireland, 2018 saw that only 25% of people working in the technology industry were women. Addressing the vast underrepresentation of women in this field of study is essential in the current





technological era. Encouraging women to pursue careers in technology is essential to create equal and mutual industries that will ultimately, shape our future.

Being motivated to follow STEM careers such as a career in the technology industry can encourage you to realise your true potential and will work to drive the industry of tomorrow. Understanding that there are equal opportunities for women in STEM jobs means that you can be confident to pursue exciting careers in the rich and exciting areas of technology. Breaking gender stereotypes can help you to follow the career of your dreams and be motivated to do so without fear!

TASKS

So, are you thinking about your own career path and are wondering how you could start your career working in the technology sector? Being motivated to follow your dreams is a great first step in the right direction. It is important to consider the fundamentals of motivation when following your goals. This can be broken down into five components:

- Achievement
- Affiliation
- Autonomy
 - Power
 - Purpose

Understanding and appreciating what you want to achieve within your career path is important when assessing your career plan. In order to begin thinking about a career in technology, why not assess your abilities, desires, and resilience through a Career Management Tool? A Career Model Canvas will guide you through the most important elements in career management and will help you to evaluate if a career in technology is for you!





Through a process of steps outlined in this WebQuest, you will be guided to evaluate your competences in the sector of engineering. These competencies include:

- Competences of the Self – Being able to know your own worth and what you can provide to a company, organisation, or society.
- Competences of Strength – Being able to acquire and build upon own abilities and strengths that can be applied to both education and working lives.
- Horizons Competences – Being able to creatively think about career prospects by imagining, planning and act upon career ambitions.
- Network Competences – Being able to develop important relationships and networks that can provide support or opportunities.

(Skills Development Scotland, 2012)

Assessing your career goals and options is a great first step in pursuing your future. Through this WebQuest, you will gain an insight into the many different elements of career management and goal setting. Let's get started!

PROCESS

Step 1: Technology Theory

Why does a career in technology interest you? Are you motivated by the job role, the skills you have, the array of positions that exist within this sector? It is first important when preparing your Career Management Plan to consider what opportunities this industry offers you in terms of positions within the labour market.

Below, you will find a collection of links relating to **different careers** you could follow in **the field of technology**.





What are the fastest growing tech jobs?

<https://www.thebalancecareers.com/the-7-fastest-growing-tech-jobs-of-the-future-2071965>

Making a career shift into technology: <https://www.youtube.com/watch?v=w94uiz3hMk0>

Reasons to work in the technology sector:

<https://gradireland.com/career-sectors/it-and-telecoms/careers-in-it-telecoms>

Why work in the tech sector? <https://www.womenintech.co.uk/why-work-in-technology>

Women in tech: <https://www.youtube.com/watch?v=Zaw4Xdnb1tg&t=144s>

For more information on **the technology sector in Ireland**, click on the following links:

Tech jobs in Ireland for you: <https://techlifeireland.com/tech-careers/>

Irish technology jobs: <https://www.irishjobs.ie/Technology-Jobs>

Irish tech talent:

<https://enterprise.gov.ie/en/What-We-Do/Workplace-and-Skills/Skills-for-Enterprise/Attracting-Tech-Talent-to-Ireland/>

Technology industry in Ireland:

<https://www.idaireland.com/doing-business-here/industry-sectors/>

Ireland as a technology hub: <https://www.youtube.com/watch?v=7rsMCZoj-fs>

The evolution of tech in Ireland: <https://www.ictskillnet.ie/news/the-evolution-of-tech-in-ireland/>

Step 2: The Worth of your Self-Worth

Knowing your worth and acknowledging what you can offer to a career role is a great first step when considering your own career plan. When starting a career plan, it is important to consider what you can offer and what qualifications you will need to obtain in order to pursue your desired career path.





For more information on **technology industry requirements**, click on the following links:

IT and Technology sector requirements:

<https://targetjobs.co.uk/career-sectors/it-and-technology/286177-getting-a-graduate-job-in-it-and-technology-the-basics>

Upskilling in the tech industry: <https://www.softwareskillnet.ie/>

Getting hired in the technology sector:

<https://gradireland.com/career-sectors/it-and-telecoms/how-to-get-hired-in-it>

Understanding your self-worth is a key aspect of being motivated to pursue a new career path. This leads to self-exploration, where you begin to understand yourself. This is essential in career planning as this requires courage and a belief in ourselves.

For more information in **recognising your worth**, click on the following links:

Self-assessment career planning: https://careersportal.ie/careerplanning/self_assessment.php

Career development & self-worth:

<https://www.indeed.com/career-advice/career-development/importance-of-high-self-worth>

Knowing your value in your career:

<https://www.linkedin.com/pulse/3-reasons-why-its-important-always-know-your-value-jt-o-donne/>

What are you worth in career terms?

<https://ennielifecoach.com/2020/05/26/what-are-you-worth-in-career-terms-5-ways-to-assess-yourself/>

In planning your career's next steps, it's important to first identify your personal desires, aspirations, and needs. In doing so, you can recognise what shapes your own vision. This can help to bring your goals in fruition. Complete (or copy) the table below to analyse and





identify what are your interests, skills, values, family and cultural influences, and personality attributes that motivate you to pursue a career in technology.

Career Planning Self-Assessment			
Interests	1.	2.	3.
Skills	1.	2.	3.
Values	1.	2.	3.
Family & Cultural Influences	1.	2.	3.
Personality	1.	2.	3.

Acknowledging what inspires you to follow a new career path is a great motivator. A self-assessment can help you to reflect on your goals and be an exciting, eye-opening experience in realising what YOU bring to the world of work!

Step 3: Strengthening your Potential

Now that you have completed your self-assessment, it's time to focus on your strengths and what you will need in the technology sector. Before you get to work on what your strengths are, it's important to identify the necessities of a career in the technology sector.

To discover more about the **skills and qualities needed** within **the technology industry**, click on the following links:

The future of skills: <https://www.youtube.com/watch?v=fBDIAA0GEes>

Top career skills for tech sector:

<https://www.computer.org/publications/tech-news/trends/top-career-skills-to-land-in-your-dream-tech-companies/>

Key skills for tech graduates: <https://www.youtube.com/watch?v=pl9CNWCWxpc>





Technology Skills 2022 Report Ireland:

https://www.ics.ie/news/Technology_Skills_2022_ireland_report

Being aware of your self-image and your strengths is a fundamental step in your career management plan. This helps you to identify what skills you have, need, and can develop to pursue your dream career.

Ways to future proof your career:

<https://www.youtube.com/watch?v=qQGgH9QHybU&t=105s>

Top skills in the technology sector:

<https://www.brightnetwork.co.uk/career-path-guides/technology-it-software-development/top-skills-excel-technology-sector/>

Top 10 skills tech companies need today:

<https://digitalskillsglobal.com/blog/the-top-10-digital-skills-tech-companies-are-looking-for-today>

Tech skills in demand today: <https://learntocodewith.me/posts/tech-skills-in-demand/>

Step 4: Networks Work

Another important component in your Career Management Plan is to think about your networks. Networking plays a fundamental role in career planning as it allows you to find support networking that can help you to achieve your goals. Networks depends on building relationships with people, organisations and establishments that will support you on your career path.

For **networks** for careers in the **technology industry**, click on the following links:

Technology Ireland: <https://www.technology-ireland.ie/>

Skills Net Ireland: <https://www.skillnetireland.ie/sector/ict/>





Technology Gateway Enterprise Ireland: <https://www.technologygateway.ie/>

Career guidance: <https://careersportal.ie/>

For **support networks as a woman in STEM** in the **tech industry**, click on the following links:

Connecting women in Technology: <https://cwit.ie/>

Women in tech Dublin: <https://www.women-in-tech-dublin.com/>

Reboot for women in tech: <https://www.softwareskillnet.ie/women-reboot/>

Step 5: What is on the Horizon?

In this step, it is important to lay out the basis of your career management plan. Creating a 5-year plan will give you the outline for your Career Model Canvas. Creating *Horizons* for your future career is a great way to identify what you want to achieve, while also motivating yourself to accomplish what you set out to do.

For more information on the **importance of setting motivational horizons for your career plan**, click on the following links:

Planning for your horizons: <https://aafa.com/four-reasons-why-you-need-a-5-year-plan>

Motivation for your new career:

<https://www.forbes.com/sites/jackkelly/2018/05/11/8-smart-ways-to-successfully-motivate-yourself-to-start-your-job-search/?sh=3585e9db4d07>

The horizon for your new career:

<https://www.forbes.com/sites/jackkelly/2020/07/28/how-to-successfully-self-motivate-yourself-to-look-out-a-new-job/?sh=67b5f1397ca4>





For more information on the **possibilities of job horizons** within the **tech industry**, click on the following links:

Salary in the tech sector: <https://gradireland.com/career-sectors/it-and-telecoms/>

Career growth within the tech industry:

<https://www.comptia.org/career-change/why-change/it-career-growth>

The future demand for ICT skills:

<https://enterprise.gov.ie/en/Publications/Publication-files/Forecasting-Future-Demand-High-Level-ICT-Skills-Ireland-2017-2022.pdf>

The benefits of an IT career: <https://work.chron.com/advantages-computing-career-12742.html>

Now that you have researched the many possibilities of horizons within this industry, it's time to create your 5-year plan for your future career. Consider the following aspects when looking into your future job prospects within the technology sector. Now create a rough outline of your 5-year plan and what you want to achieve regarding the future of your career.



1. Create a blueprint & identify which career you want to pursue within this industry



2. Outline what you want to achieve



3. Set a reasonable timeframe for your goals



4. Keep track of your progress and hold yourself accountable



5. Reflect on your progress in order to stay motivated and grounded

Step 6: Time for Action: *Career Model Canvas*





You have truly evaluated your self-worth strengths, networks, and horizons of your career in technology. After analysing your personal attributes and conducting a brief 5-year plan, you are ready to complete your own Career Model Canvas. This tool will play a fundamental role in your career planning and will help you to have a thorough plan of action!

With the document below, make your own Career Model Canvas and fill out the sections with the information you have gathered in the previous steps of this WebQuest. You can use this resource to help you to kickstart your new start in your future career path!

In your own Career Model Canvas you will detail:



CREATE YOUR OWN CAREER MODEL CANVAS



CAREER OR JOB TITLE:

<p>Key Partners (Networks)</p> <p><i>Include an overview of networks in your region, nationally and across Europe where you can access advice on this potential career.</i></p>	<p>Key Attributes (Self)</p> <p><i>List here the key personal attributes that you have, that are particularly useful for your new career. Describe who you are and what you can bring to this role.</i></p>	<p>Value Proposition (Strengths)</p> <p><i>List your key strengths, highlighting the skills and experiences that you can bring to this new career. Try to answer the question: "What sets me apart from other candidates in this role?"</i></p>	<p>Soft Skills (Strengths)</p> <p><i>List here the soft skills (communication, teamwork, collaboration, etc.) that you have and identify how they can be used in this new career.</i></p>
<p>Key Values (Self)</p> <p><i>List here what is important to you in a career, and in life. List your intrinsic and extrinsic motivations, and state what your personal goals are for this new career.</i></p>		<p>Transferrable Skills (Strengths)</p> <p><i>List here the main transferrable skills that you have from other experiences and life roles. Include an example of how these skills can be applied in your new career.</i></p>	
<p>Revenue (Horizons)</p> <p><i>Research and summarise the salary potential of this role and estimate the opportunities for advancement in this sector for your own career.</i></p>		<p>Growth Potential (Horizons)</p> <p><i>Research and estimate the potential growth in this sector in your country, across Europe and globally.</i></p>	

Click on the following link to **develop and complete your personal Career Model Canvas**:

Your own Career Model Canvas: ***Insert link**

EVALUATION





On completion of this WebQuest, you will have achieved the following learning outcomes:

Technology	Knowledge	Skills	Attitude
	<ul style="list-style-type: none"> ● Factual knowledge of available career pathways into the IT sector. ● Factual knowledge of national and European career options in the IT sector. ● Factual knowledge of national and EU programmes for women in IT. ● Theoretical knowledge of personal attributes required for career 	<ul style="list-style-type: none"> ● Discuss career options in the IT sector. ● Self-evaluate personal suitability to careers in this sector. ● Self-assess skill deficits for a successful career in IT. ● Develop an education and career plan for success in the Science sector. ● Explore available career options. ● Research successful female role 	<ul style="list-style-type: none"> ● Willingness to assess one's own motivation to pursue a career in the IT sector. ● Awareness of the important role that women play in the IT sector. ● Openness to exploring career options in the IT sector. ● Willingness to share what has been learned with other female professionals in a network.





	success in this sector.	models in the IT sector. <ul style="list-style-type: none">• Solve challenges to build resilience when planning a career in the IT sector.	<ul style="list-style-type: none">• Openness to engaging in female networks in the IT sector.• Willingness to self-evaluate to identify skills and attributes needed to succeed in Technology careers.
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As a self-assessment for this WebQuest, complete the following questions below:

1. Only men have made significant contributions to the sector of technology. True or False?

Answer: False

2. Which of the following options are the five components of career motivation?
 - a) Achievement, Affiliation, Autonomy, Power, Purpose
 - b) Achievement, Autonomy, Excuses, Position, Power
 - c) Achievement, Force, Impulse, Power, Purpose
 - d) Achievement, Affiliation, Autonomy, Capability, Purpose

Answer: (a)

3. What percentage of women work in the technology industry in Ireland, in 2018?





- a) 15%
- b) 35%
- a) 55%
- b) 25%

Answer: (d)

4. Which of the following is NOT a career in technology?
- a) Data analyst
 - b) Welfare Officer
 - c) IT administrator
 - d) Programme developer

Answer: (b)

5. Which of the following skills are common among people in the technology industry?
- a) Analytical skills
 - b) Problem-solving
 - c) Resourcefulness
 - d) All of the above

Answer: (d)

CONCLUSION

Congratulations! Planning your career is a great first step in the right direction to following the career of your dreams! Being motivated to consider your own Career Management Tool helps you to make achievable goals! Planning your career can offer you an insight into the decisions, (educationally, professionally, and personally) that you need to make in order to enter a STEM career.

By completing this WebQuest, you have researched, analysed, and assessed your capability for a career in technology and the steps you will need to take in order to achieve





this goal. Following a career in technology will provide you with a rich, exciting, and interesting career that will help to shape the world that we live in. This WebQuest has acted as a steppingstone in making your dreams into a reality! Careers in the technology industry offer many benefits such as; variety, challenges, meaningful work, development, innovation, and a considerable income.

As a woman in this sector, you have the power to combat male stereotypes that exist within the technology industry and pave the way for other women interested in STEM careers too! So, what's stopping you? Why not get started on your new career move today!

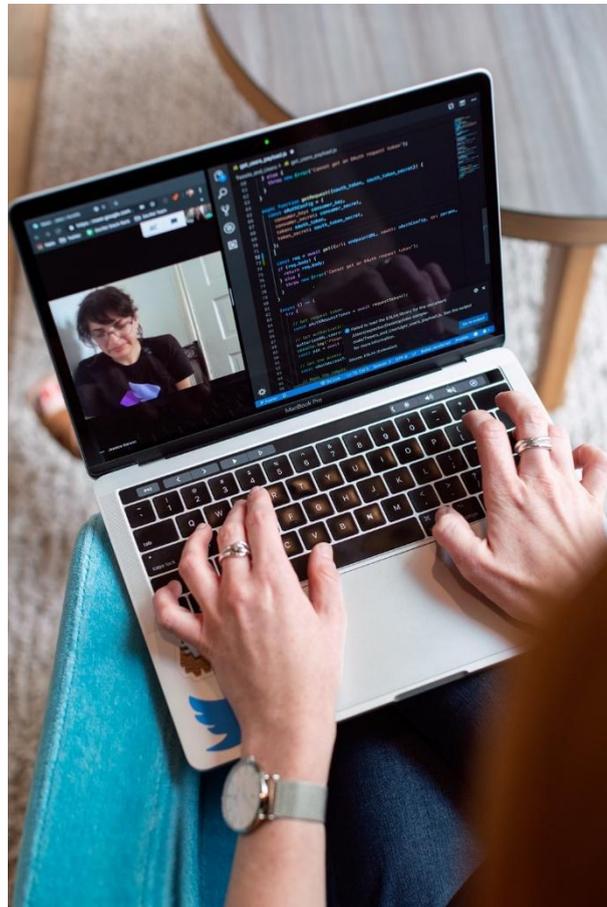


Photo: *Unsplash*





“When you’re pursuing any career really, but especially in one in technology, find your passion. And don’t let anything stand in your way.”

- Alyssa Johnson

