### Careers project My Career Profile, Influences, and aims for University.

Michael .J. Flynn October 2017 In this careers project, I will:

- Entail details of my Reach+ Careers Portal assessments to outline my strengths and weaknesses in multiple areas.
- Investigate the best possible university choices based on my personal academic analysis of myself.
- Give in-depth research on the current state of engineering as a viable career option for me.
- List off in detail the multiple factors that influenced my university and career decisions.
- Conclude my careers report by summing up all of the factors of the report.

Personality Profile Report.   Personal and Careers Values Report.   Interests Profiler Summary Report.   Ireland - (Oxford & Cambridge)   Engineering Oxford   Engineering at Cambridge   Careers and Employment Trends   Influences	
Personal and Careers Values Report.Interests Profiler Summary Report.Ireland - (Oxford & Cambridge)Engineering OxfordEngineering at CambridgeCareers and Employment TrendsInfluences18	3
Interests Profiler Summary Report.1Ireland - (Oxford & Cambridge)1Engineering Oxford12Engineering at Cambridge14Careers and Employment Trends15Influences18	7
Ireland - (Oxford & Cambridge)1Engineering Oxford12Engineering at Cambridge14Careers and Employment Trends19Influences18	8
Engineering Oxford12Engineering at Cambridge14Careers and Employment Trends15Influences18	9
Engineering Oxford12Engineering at Cambridge14Careers and Employment Trends15Influences18	
Engineering at Cambridge14Careers and Employment Trends15Influences16	11
Careers and Employment Trends 1! Influences 18	12
Influences 18	14
	15
Conclusion 19	18
	19

## **Careers-Portal Assessment**



#### 1. Multiple Intelligences Report (ranked by highest scores)

#### Musical - Good with Rhythm - Music Smart [38]

Musical intelligence is the ability to tell the difference to between pitch, rhythm and tone. **What it means?** 

This intelligence enables us to recognize, create, reproduce, and reflect on music, as demonstrated by composers, conductors, musicians, vocalist, and sensitive listeners.

Interestingly, there is often a connection between music and the emotions; and **mathematical and musical intelligences may share common thinking processes.** Young adults with this kind of intelligence are usually quite aware of sounds others miss and enjoy listening to music, singing, repeating, harmonizing, dubbing, rapping, multimedia presentations, drumming to themselves, creating music and going to concerts.

#### **Famous People**

Stevie Wonder, Cher and Beethoven are famous examples of musically intelligent people.

#### Spatial - Good with Art and Design - Picture Smart [34]

Spatial intelligence is the ability to think in three dimensions.

#### What it means?

Having these skills means you have the ability to think in images, have very good graphic and artistic skills and an active imagination. Graphic artists, architects, and map-makers, sailors, pilots, sculptors, painters are examples of spatially intelligent jobs.

Young adults with this kind of intelligence may be fascinated with mazes or jigsaw puzzles, spend free time drawing, are very good at reading maps, playing chess, drawing diagrams and illustrations, repairing machinery and understanding geometry.

#### **Famous People**

Leonardo da Vinci, The Wright Brothers and Andy Warhol are examples of famous spatially intelligent people.

#### Logical-Mathematical - Good with Mathematics and Logic - Number Smart [33]

Logical-mathematical intelligence is the ability to calculate, quantify and handle logical thinking and problem solving.

#### What it means?

Logical intelligence is an ability to understand numbers and concepts well and to have excellent reasoning skills. This is usually well developed in mathematicians, scientists, and detectives.

Young adults with lots of logical intelligence are interested in patterns and they are drawn to mathematical problems, brainstorming, investigating, online searching computers and programming.

#### **Famous People**

Bill Gates, Albert Einstein and Thomas Edison are famous examples of logically intelligent people.

#### Bodily-Kinesthetic - Good with Activities - Body Smart [29]

Bodily kinesthetic intelligent people have excellent coordination, balance, dexterity, strength, fine motor skills, speed, flexibility and how to use their entire body to relate thoughts and feelings.

#### What it means?

This intelligence involves a sense of timing and the perfection of skills through mind–body union. Athletes, dancers, surgeons, and craftspeople exhibit well-developed bodily kinesthetic intelligence.

Young adults with this intelligence usually enjoy performing, football, dancing, making or constructing things, crafts, fashion, shapes, exercise and gymnastics.

#### Famous People

Michael Jordan, football player Joe Montana and actress Julia Roberts are examples of people with this intelligence.

#### Naturalist - Good with Understanding Natural World - Green Smart [25]

The Naturalist is sensitive towards nature and the world around them. **What it means?** 

People with this intelligence were clearly of value in our evolutionary past as hunters, gatherers, and farmers. They have the ability to observe patterns in nature and a love of being outdoors and very interested in the well-being of the environment. This type of intelligence is important in Botanists and Chefs.

Young people with this intelligence usually enjoy camping, gardening, hiking and exploring the outdoors. They are interested in growing plants, taking care of animals and studying nature with binoculars, telescopes and microscopes.

#### **Famous People**

Charles Darwin is the best example of a famous person with naturalist intelligence.

#### Linguistic-Verbal - Good with Words - Word Smart [25]

People with linguistic intelligence have well-developed verbal skills and sensitivity to the sounds and meanings of words.

#### What it means?

Linguistic intelligence means to have a deep understanding of words and to use language to appreciate its meaning. It is the most widely shared human competence and is evident in poets, novelists, journalists, and effective public speakers.

Young adults with this kind of intelligence enjoy writing, reading, taking notes, researching, telling stories or doing crossword puzzles.

#### Famous People

William Shakespeare, and Abraham Lincoln are famous examples of linguistically intelligent people.

#### Intrapersonal - Good at Self-Reflection - Self Smart [25]

Intrapersonal intelligence is the capacity to understand yourself; your thoughts and feelings, and to use this knowledge to plan your life.

#### What it means?

People with intrapersonal intelligence know themselves well; their dreams, goals, moods, strengths and limits. This intelligence is evident in psychologists, spiritual leaders, and philosophers.

These young adults may be shy and are very aware of their own feelings, are self-motivated and make decisions based on what is right for them. Some enjoy keeping a diary.

#### **Famous People**

Sigmund Freud, James Joyce and Bill Gates are all famous people with intrapersonal intelligence.

#### Interpersonal - Good with Communication - Peoplesmart [24]

Interpersonal intelligence is the ability to understand and interact very well with others. **What it means?** 

It involves excellent verbal and nonverbal communication skills, being sensitivity to the moods and temperaments of others, and the ability to have different perspectives on a situation. Those who have highly developed interpersonal intelligence are successful leaders, bosses, and public speakers. Teachers, social workers, actors, and politicians are careers that show interpersonal intelligence.

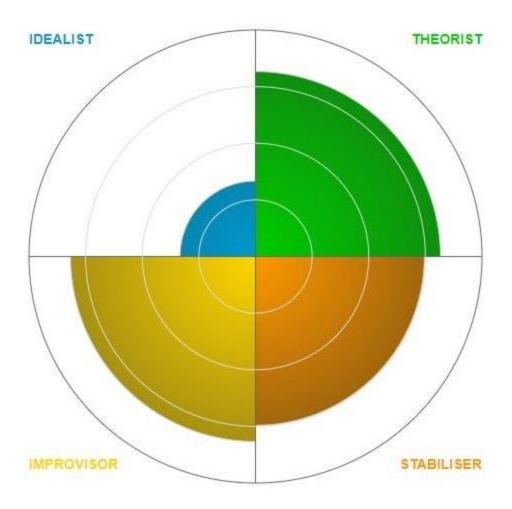
Young adults with this kind of intelligence are leaders among their peers, are good at communicating, and seem to understand others' feelings and motives.

#### **Famous People**

Oprah Winfrey, Gandhi and Bill Clinton are all well known people with interpersonal intelligence.

\*To be completely honest I really don't think I'll ever be a musician just because I play instruments in my spare time.

#### 2. Personality Profile Report.



#### 3. Personal and Careers Values Report.

Name	Yo	ur S	Sco	re						
Preserving the Earth	0	0	0	0	0	0	$\bigcirc$	0	0	۲
Accomplishment	0	$\bigcirc$	$\bigcirc$	0	$\odot$	0	0	0	0	۲
Self-Preservation	0	0	0	0	0	0	$\bigcirc$	0	0	۲
Personal Satisfaction:	0	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	0	$\bigcirc$	0	0	۲
Patriotism	0	0	۲	0	0	0	$\bigcirc$	$\bigcirc$	0	۲
Self-Esteem	0	$\bigcirc$	$\bigcirc$	0	$\bigcirc$	0	$\bigcirc$	0	0	۲
eace of Mind	0	0	0	0	0	0	$\odot$	0	0	۲
<u>oyalty</u>	0	$\bigcirc$	$\bigcirc$	$\odot$	$\bigcirc$	0	0	0	$\odot$	۲
Family	0	0	۲	0	0	0	0	0	0	۲
Control	0	0	$\odot$	0	0	0	0	0	0	۲
Enjoyment	0	0	0	0	0	0	0	0	۲	0
elonging	0	$\bigcirc$	$\odot$	0	$\odot$	0	0	0	۲	0
ecurity	0	0	0	0	0	0	$\bigcirc$	0	۲	0
compassion	0	$\bigcirc$	$\odot$	0	$\odot$	0	0	0	۲	0
nowledge	0	0	0	0	0	0	$\bigcirc$	0	۲	0
elf Sufficiency	0	$\bigcirc$	$\odot$	0	$\odot$	0	0	0	۲	0
rust	0	0	0	0	0	0	$\bigcirc$	0	۲	0
reedom	0	$\bigcirc$	$\bigcirc$	0	$\odot$	۲	0	۲	0	0
Vealth	0	0	۲	0	0	0	0	۲	0	0
riendship	0	0	$\odot$	0	0	0	0	۲	0	0
Children	0	0	۲	0	0	0		۲	0	0
Visdom	0	0	$\bigcirc$	0	$\bigcirc$	0	0	۲	0	0
ustice	0	0	0	0	0	0	۲	0	0	0
quality	0	0	0	0	$\bigcirc$	0	۲	0	0	0
eace		0	0	0	0	۲	0	0	0	0
Respect for Life	۲	0	$\bigcirc$	0	$\bigcirc$	0	0	0	0	0
ternal Life	۲	0	0	0	0	0	$\bigcirc$	0	0	0

\*I believe the above is grossly unfair in saying I have no respect for life, for peace, for equality, or for Justice.

#### 4. Interests Profiler Summary Report.



#### **CareersPortal Interest Profiler - Summary Report**

Michael Flynn 7th October 2017

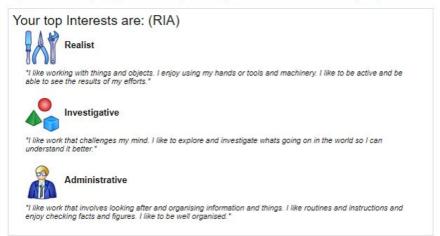
Group Name	<< less preferred   more preferred >>	Score
Realist		41
Naturalistic		6
Enterprising		27
Social		15
Investigative		30
Administrative		27
Creative		21
Linguistic		5

The graph above displays your interests profile. It shows not only high and low interest categories but also indicates the relative extent of your interests compared to each other. For the purposes of your career exploration, focus on the highest scores.

Note that where scores are close (a few points different) you may consider them as equal - no exercise of this type is that precise! If this is the case, you may have to consider that the order of your top interests may differ from what is described below.

Low or negative scoring groups describe categories of work that are unlikely to provide you with much satisfaction.

To print the full career report, login to www.careersportal.ie and go to the results of the Interest Profiler (CPIP)



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## University Courses

#### Ireland - (Oxford & Cambridge)

Candidates with the Irish Leaving Certificate, from 2017:

- For courses with an A-level entrance requirement of AAA: H2H2H2H2H2H2 at Higher level.
- For courses with an A-level entrance requirement of A\*AA: H1H1H2H2H2H2 at Higher level.
- For courses with an A-level entrance requirement of <u>A\*A\*A</u>: <u>H1H1H1H1H2H2</u> at Higher level.

The above details how I must score in my leaving certificate. Both engineering courses in Oxford and Cambridge require the irish equivalent of an A\*A\*A. i.e I need a mInimum of 601 points in my leaving cert.

<u>Subject:</u>	Level:	Expected L.C result:	<u>Result at</u> Junior cert:
Maths	Higher Level	H1	Higher Level A
Applied Maths	Higher Level	H1	N/A
Physics	Higher Level	H1	Higher Level A
Chemistry	Higher Level	H1	Higher Level A
D.C.G	Higher Level	H1	Higher Level A
French	Higher Level	H2	Higher Level B
English	Ordinary Level	01	Merit
Irish	Ordinary Level	01	Higher Level C
	Total Points:	613	

#### **Goals For Leaving Certificate:**

#### **Engineering Oxford**

Engineering Science encompasses a vast range of subjects, from microelectronics to offshore oil platforms, and involves the application of creative reasoning, science, mathematics (and of course experience and common sense) to real problems.

The Department of Engineering Science at Oxford has a top-level quality assessment rating for teaching, and a world-class reputation for research. Because we believe that future engineering innovation will benefit from broad foundations as well as specialised knowledge, teaching is based on a unified course in Engineering Science, which integrates study of the subject across the traditional boundaries of engineering disciplines. Links between topics in apparently diverse fields of engineering provide well-structured fundamental understanding, and can be exploited to give efficient teaching.

The Engineering Science programme is a four-year course, leading to the degree of Master of Engineering. The first two years are devoted to topics which we believe all Engineering undergraduates should study. In the third and fourth years there is scope for specialisation into one of six branches of engineering: Biomedical, Chemical, Civil, Electrical, Information and Mechanical. Decisions about which of these will be your specialisation can be deferred until the third year. In the fourth year there may be opportunities to study abroad. The course is accredited every four years by the major engineering institutions in respect of the initial requirements for the designation of chartered engineer.

Industrial experience is an extremely important adjunct to an academic engineering education, and undergraduates are strongly encouraged to obtain it. One way to do so is by being sponsored. Further information is generally available through your careers teacher, or from the engineering institutions.

If your sponsoring company wants you to spend a year with them before university, you will be asked to declare this at your interview and in your UCAS application.

Oxford Engineering Science graduates work in many different sectors such as banking and investment, consultancy, accountancy, IT and computing, energy and the environment. However, as you may expect, most go on to work in the engineering and manufacturing sector. Some decide to continue their studies at Oxford, or elsewhere, by working towards a doctorate.

Mark now works as a race strategy modeller at Ferrari and says: 'My work involves applying mathematical techniques to a variety of engineering problems related to Formula One cars. One recent example has been with race strategy, where we try to choose the optimum times to pit the car throughout a

race and the best tyres to put on. I believe the reputation of the Oxford engineering degree was an important factor in securing a job in Formula One.'

#### **Engineering at Cambridge**

The Cambridge Engineering course is unique. It allows you to keep your options open while equipping you with all the analytical, design and computing skills that underpin modern engineering practice.

Part I (Years 1 and 2) provides a broad education in engineering fundamentals, enabling you to make a genuinely informed choice about the area in which to specialise from your third year (many students change direction as a result). Part II (Years 3 and 4) then provides in-depth training in your chosen professional discipline.

The following specialisations are available within our Engineering course:

- Aerospace and Aerothermal Engineering
  - Bioengineering
- Civil, Structural and Environmental Engineering
  - Electrical and Electronic Engineering
  - Electrical and Information Sciences
  - Energy, Sustainability and the Environment
    - Information and Computer Engineering
      - Instrumentation and Control
        - Mechanical Engineering

#### **Department and facilities**

The Department is a leading international centre for research, consistently ranked the highest amongst British universities. We also have strong links with industry, with many research projects funded by industrial companies.

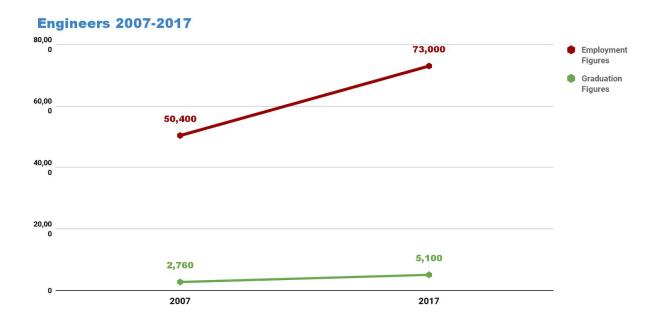
Our facilities are excellent: the new Dyson Centre for Engineering Design provides access to traditional hand and machine tools, as well as modern computer-controlled machinery and rapid prototyping; the Design and Project Office is equipped with more than 80 workstations; the library has 30,000 books and takes about 350 journals; and extensive mechanical and electrical workshops are available. The Department's Language Programme for Engineers offers specialised courses at all levels in French, German, Spanish, Chinese and Japanese.

#### **Industrial experience**

You're required to complete six weeks of industrial experience by the end of the third year, obtained by deferring entry or during vacations. Our full-time Industrial Placement Co-ordinator helps deferred entrants and undergraduates to find suitable placements (in the UK and abroad) and sponsorship.

# **Career & Employment Trends**

#### **Employment & Graduation Trend in Ireland** 2007-2017



Between 2007 and 2017 there has been an average increase of 2,260 jobs per year and only an average increase of 334 Irish engineering graduates per year.

The above data shows that engineering job opportunities are on the rise and, alongside low Irish graduation figures, show how finding a job as an engineer in ireland is not difficult.

#### Pay:

The average starting pay for engineering graduates in Ireland ranges between €31,000 - €34,000.

Overtime, an engineer's salary can increase to over €100,000 depending on the engineering discipline.

#### **Demand:**

Demand for engineering graduates is astonishing. England is expected to need 1,000,000+ qualified engineers in the next few years. Germany and France are short millions of engineers and these numbers continue to grow without enough graduates to fill the demand. This leaves a huge amount of open opportunities for engineering graduates.

## Risk of jobs being taken by robots/computers.



#### Source: www.willrobotstakemyjob.com

As shown above, engineering jobs being taken by computers is not probable.

#### INFLUENCES

My gravitation towards engineering is not something that I entirely got from my family. My dad owns an I.T Recruitment business and he usually discussed new technologies and advancements with me and whilst this did grab my attention, it did not solely influence me.

Coming into secondary school, subjects such as Physics, Chemistry, Maths, and T.G fascinated me. This Fascination led me to research each topic more in-depth and it was through this research that I began to understand the world of engineering and how it contributed to a lot of mankind's greatest achievements. From then on all I wanted was to be an engineer.

My desire to be an engineer was also influenced by many public figures as-well. People such as Elon Musk had great influences on me. I mention Elon Musk specifically because he really is one of my greatest idols. Tesla, SpaceX, his funding of the hyperloop program, etc... All fascinated me and inspired me. I thought that maybe one day, if I put the effort in, that I could contribute to humanity in the same way he has.

In my spare time, wandering around the internet, I discovered many engineering feats such as mechanical limbs that can feel and robotic animals that can run faster than Usain Bolt. By just reading articles such as these I was in awe. The mere fact that any of this was even possible blew my mind.

Coming back to family influences, one year my dad got me a 3D Printer so that the ideas in my head that I created on my computer could be made real.

To conclude, my love of engineering was influenced by my family, my idols, my school, and from reading about the amazing marvels created by engineers.

#### **Conclusion:**

To conclude this careers report I will summarise all elements of the report to prove why engineering is the route for me.

- As the Reach+ reports show, I have aptitudes for mathematics and design, I have a sense of accomplishment, and I am a realist and an investigative person. These are all attributes of engineers.
- As my personal scrutinisation of my skills in my chosen Leaving certificate subjects suggests, I have an ability in Physics, Chemistry, Mathematics and D.C.G. As an extra side not, due to my scores in mathematics and science in the Junior Cert, I was invited by D.C.U to compete for a place on the Irish European Science Olympiad Team on the 11th of November.
- My research into Employment trends, graduation figures of engineering shows that there is a demand for engineers in the world which means that job availability will not be an issue for me when i leave school. As I've also stated, the risk of the engineering occupation being automated is also very low.
- My influences have been strong and have not been pushed which shows a self acceptance of engineering as a passion.

Overall I do strongly believe engineering will be my future career and I can't wait to see what I'll do.