

# WHAT COULD iBE?

CAREER IDEAS FOR KIDS & PARENTS

SCOTLAND EDITION 02 | NOVEMBER 2014

## LAW & SOCIETY

LIVING & WORKING TOGETHER



IN ASSOCIATION WITH

**EveningTimes** **sundayherald**



Skills  
Development  
Scotland



# WHAT COULD I BE?

CAREER IDEAS FOR KIDS & PARENTS

Hi!

Welcome Back to **What Could I Be?** the i-zine for you and your friends about careers ideas. We want to show you some different ways to think about the world of work, so you can be whatever you want to be.

In this edition we're looking closely at our place in society and the way we choose to live; who protects us from harm or conflicts; who makes 'the rules' and enforces them; who looks after our public spaces (the buildings, land and water which are everyone's) and who's doing something really different to help their fellow citizens. (Check out the special contact lenses on page 15!)

There's also a mention for John Muir who I know many of you will have studied in primary school. (It was affectionately known as 'Sticks and Poo' by my kids.) But did you know he was such an influential man in America? At the same age as you, he decided his dream and made it come true and he just happened to have a huge influence on society at the same time.

Who knows? You could too.  
Happy reading.

Tim



rights  
JUSTICE  
EQUALITY  
LAW

HEY YOU'RE BACK!  
OR WE'RE BACK!  
OR ACTUALLY THIS MIGHT BE YOUR FIRST  
**WHAT COULD I BE** EXPERIENCE AND YOU HAVE  
NO IDEA WHAT WE'RE ON ABOUT?  
IF SO WHERE HAVE  
YOU BEEN?

YOU MISSED ONE HECK OF A PARTY LAST TIME.  
FULL OF MARSHMALLOWS AND CAT VIDEOS! BUT  
YOU'RE HERE NOW AND THAT'S ALL THAT MATTERS.

Welcome to What Could I Be? Issue number two and this time it's personal — if of course personally, you're into law and society. Which should be all of you. Because that's what we're going to show you, how you, your friends, even your teachers fit into this big wide world.

You might think you've got little in common with the Prime Minister or the people in charge of running the country but actually they all started where you are, and we're pretty sure if something like What Could I Be? had been around when they were your age — in the time of the dinosaurs and the invention of the wheel — they would have read it and they'd be even more successful than they are now.

But enough about us, let's get down to showing you around. We'll give you a tour around all the different jobs there are concerning the Law and Society but don't worry it's not all reading, we've got quizzes and games. And who knows you might find something on these pages that sticks with you for the rest of your life.

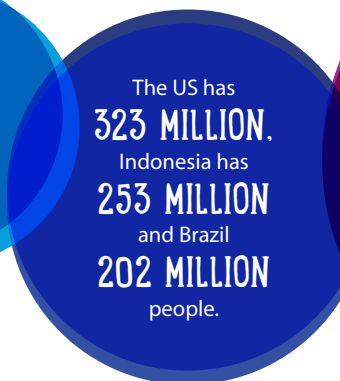
## MEET THE TEAM



THE WORLD POPULATION IS GROWING AND TODAY IS MORE THAN 7.2 BILLION PEOPLE.



China and India  
have more than  
**1.2 BILLION**  
people each.



The US has  
**323 MILLION.**  
Indonesia has  
**253 MILLION**  
and Brazil  
**202 MILLION**  
people.



THE UK HAS  
**63 MILLION**  
PEOPLE.

# Our Place in Society...

HOW STRUCTURES AND RULES CONNECT US AND OUR COMMUNITIES

It's easy to think you have nothing in common with people in the other cities, towns, villages or countries. But in the United Kingdom we're all part of the same society which is governed by the same rules and laws.

**DEMOCRACY** is all about power to the people. The word comes from the Greek word *dēmokratia*. *Dēmos*: the people + *kratia*: power, rule. That's why it's so important to vote.

## CROSS BORDER ORGANISATIONS

Wars, natural disasters like earthquakes, famine and disease affect the lives of millions of children and adults every day. We see some of these stories on the news.

**So who helps the people that need help?**

Fortunately, there are charities and organisations like *Medecins Sans Frontieres* (MSF) who are set up to cross borders. MSF provides medical aid to people in over 60 different countries.

THE UN HAS THREE INTERESTS:



### DID YOU KNOW...

The UN has six official languages, Arabic, Chinese, English, French, Russian and Spanish. So translators are really important.

You can't get more important than talking for the UN, but I bet those translators can't agree on which country does the best food!

Today the UN employs 44,000 people around the world.

When the UN started in 1946, 300 people worked for the organisation.

UNICEF is the UN agency responsible for overcoming the barriers that poverty, violence, disease and discrimination put in a child's path.

PEOPLE FROM THE UK work in all sorts of different GLOBAL INSTITUTIONS.

## THE UNITED NATIONS

is the closest thing we have to a global community.



## UK PARLIAMENT (OR WESTMINSTER) IN THE UK IS MADE UP OF THREE PARTS:

1. **HOUSE OF COMMONS** (650 elected MPs or Members of Parliament)
2. **HOUSE OF LORDS** (non-elected members)
3. **MONARCH** (Queen)



After a general election the political party who have the most MPs are invited by the Queen to form a government led by a Prime Minister.

The government have the job of running and managing the country.

Parliament approves laws and also makes sure the government is doing a good job.

The Scottish Parliament makes laws on areas devolved to Scotland which include education, health and justice.

Members of Parliament are elected to represent the people who live in an area — known as a constituency.

In Westminster there are two places to decide laws – the House of Commons and the House of Lords – and for a law to be passed it has to be voted for in both houses.

## EUROPEAN UNION (EU)

The Houses of Parliament aren't the only place where laws are made for the UK. The European Union has a parliament of 766 MEP's to decide on the laws that affect all the member countries.

The European Union is made up of 28 countries and includes France, Germany, Spain and smaller countries like Croatia and Greece.

**What Could I Be?** is a social enterprise which aims to open up a world of careers ideas to every S1 and Y7 student in the UK, because we believe -

**you can't be what you don't see.**



# SHARING SPACE

PUBLIC SPACES ARE PART OF OUR EVERYDAY LIFE. THE ROADS AND PATHS YOU TAKE TO SCHOOL ARE THERE FOR EVERYONE TO USE. THE PARK YOU WALK THE DOG, RIDE YOUR BIKE OR KICK A BALL CAN FEEL LIKE YOUR OWN GARDEN. BUT WHAT MAKES PUBLIC SPACES SPECIAL TO ALL OF US IS THAT WE SHARE THEM WITH LOTS OF DIFFERENT PEOPLE.

## PARKS COME IN ALL SIZES

Parks can be found in cities all around the world but the idea of parks was started by the Victorians. The first public parks were seen as a way to make towns and cities more attractive places to work and live. The land was often donated by wealthy landowners as a gift to the people so they had the space to relax and exercise.

But parks are not just found in towns and cities, they are also found in the countryside. The UK has 15 National Parks which are part of a global family of over 113,000 protected areas, covering 149 million square kilometres or 6% of the Earth's surface. All this space is available to everyone.



149 MILLION SQUARE KILOMETRES (6%) OF THE EARTH'S SURFACE ARE PROTECTED NATIONAL PARKS.

## EVERYONE LOVES AN ANGEL

In many public spaces you can find public art. What is great about art is that it encourages us all to have opinions about whether we like it, love it or simply don't get it.

One of the most famous pieces of public art in the UK is The Angel of the North. Opened in 1998, it is estimated that 90,000 people see it every day. It has a wingspan of 54 metres and is 20 metres high. It has enough steel in it to make 16 double decker buses.



**JOHN MUIR** was born in Scotland in 1838 and moved to America when he was 11 years old. He loved the beauty of nature from the smallest insect to the most rugged mountain range.

He is often called the father of America's National Parks because he campaigned for land conservation. John believed that people can benefit from visiting wild places and that land needed protecting for future generations.

The John Muir Award is an education programme which helps kids to experience the wonders of nature.

Study at Scotland's Rural College  
Forestry, Horticulture and Landscape | [www.sruc.ac.uk/education](http://www.sruc.ac.uk/education)



# ALL WORK AND NO PLAY

Under the UN Convention on the Rights of the Child, children have the right to play, recreation and culture.

Playground designers around the world are always trying to find new ways for kids to have fun in the park. Here are a couple of examples of some new playgrounds.



Artists impression of the Children's Atrium.

## KEEPING US HEALTHY

Libraries, art galleries and museums are public spaces. But hospitals are also important public spaces because as citizens we access them when we are ill or have an accident.

How we relate to buildings is important for our health and this can be about simple things like light and noise reduction.

The National Health Service (NHS) is the largest publicly funded health service in the world.

More than 1.7 million people have NHS jobs in over 300 different careers from accountants to scientists, estate managers to data analysts and of course doctors and nurses!

HOSPITALS ARE PAYING MORE ATTENTION TO THE DESIGN OF THE SPACE THEY OCCUPY BOTH INSIDE AND OUTSIDE THE BUILDING.

Answers: Gamekeeper, Botanist, Gardener, Park Ranger, Roadsweeper, Fencer, Curator, Treasurgeoan, Volunteer, Greenkeeper, Planner

# WHO'S LOOKING AFTER OUR SPACE? ?!

There are so many jobs involved in planning, keeping and developing our public spaces.

How many jobs can you find hidden in the letters below? Answers at the bottom of the page.

TREESURGEONBOTANIST  
REAFENCEREVCURATORBE  
LAELIBRARIANWETPROAD  
SWEEPEREDUAFENCERVE  
GAMEKEEPERTROVISPARK  
RANGERGROENKEEPERING  
PGARDENERTOAPLANNER  
BNANMRVOLUNTEERJUSP



# WHO'S LOOKING AFTER YOU? YOUR LIFE, YOUR RIGHTS

THERE ARE MANY DIFFERENT PEOPLE DOING MANY DIFFERENT JOBS TO KEEP US SAFE, TO RESCUE US WHEN WE ARE IN DANGER AND SAFEGUARD OUR RIGHTS.



## PROTECTING YOU

From police to fire fighters, mountain rescue to paramedics the emergency services save lives on a daily basis.

Police Scotland was established on 1 April 2013 and is responsible for policing across the length and breadth of Scotland, some 28,168 square miles.

RESPONSE OFFICERS  
LOCAL CRIME INVESTIGATION  
COMMUNITY OFFICERS  
ROAD POLICING  
MARINE POLICING  
MOUNTED POLICE  
DOG BRANCH  
AIR SUPPORT



## SO WHO LOOKS AFTER THE POLICE?

Police Staff are the hundreds of people from mechanics to administrators, telecommunications technicians to computer engineers who work to ensure the police and their equipment are always ready to serve and protect us.

## MOUNTAIN RESCUE

In Scotland there are 27 volunteer mountain rescue teams who work under the authority of the police. They work any day, in any weather to find and rescue people.



BRITISH ARMY

ROYAL AIR FORCE

ROYAL NAVY



## FROM COMBAT TO HUMANITARIAN AID THE ARMED FORCES ARE AT THE FRONT LINE OF PROTECTION.

The armed forces have so many jobs it would take a week to name them but they include, auto mechanics, weapons engineers, doctors, navigators, logistic managers, pilots, physical fitness trainers, recruiters, cooks, pay clerks, family liaison officers, communication technicians and many, many, more.

The armed forces train and educate their people using apprenticeships, work based learning programmes and university degrees.

Reservists are people with skills from all types of work from medics to catering who use their spare time to work for the armed forces.

There is even a Cyber Reserve where people with technical skills and knowledge can contribute to the UK's cyber defence capability.

## YOUR RIGHTS

When people talk about their 'rights' they are usually referring to what you can and are allowed to do as a part of society. In the United Kingdom much of this is down to democracy (see page 3).

## HUMAN RIGHTS

There are lots of rights that we take for granted now. But history shows us that many of rights have had to fought for.

The UN has agreed a set of Human Rights which should be granted to every person on Earth. These are:

- Right to life
- Freedom from torture
- Freedom from slavery
- Right to a fair trial
- Freedom of speech
- Freedom of thought, conscience and religion
- Freedom of movement

In the UK you can vote at the age of 18 however just recently for the Scottish Referendum the voting age was lowered to 16.

Do you think 18 is the right age for voting? Or should it be younger? Who or what would you vote for, if you could vote?



We should have a vote to decide!!



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# THE GIFT OF TIME

WE WOULD NEED TO FIND £22 BILLION TO PAY FOR ALL THE FREE HELP PEOPLE VOLUNTEER EVERY DAY. WE ARE LUCKY THE UK IS FULL OF PEOPLE WHO WANT TO HELP OTHERS.

**DEFINITION:** [vol-uh n-teer]

Volunteering is any activity that involves spending time, unpaid, doing something which benefits the environment or someone other than close relatives.

MAKES YOU FEEL GOOD

CAN HELP YOU GET A JOB

MAKE NEW FRIENDS

LEARN NEW SKILLS

HAVE FUN

WHY DO PEOPLE VOLUNTEER?

## BIG FIVE ACTIVITIES FOR VOLUNTEERS

- 1 sport/exercise clubs
- 2 hobbies/recreation/arts/ social clubs
- 3 churches
- 4 schools
- 5 youth/ children's activities



## DID YOU KNOW?

70,000 people volunteered at the London 2012 Olympics

15,000 people volunteered for Glasgow 2014 Commonwealth Games

## WHAT JOBS DO VOLUNTEERS DO FOR YOUNG PEOPLE?

- Sports coaches • Referees • Scout leaders
- Girl Guides Brown Owls •
- Organising school fairs • Reading support for kids •
- Listening to kids on helplines •
- Community police •



## HOW OLD DO I NEED TO BE TO VOLUNTEER?

At 12 you can volunteer at the YMCA but your parents need to agree.

At 14 you can volunteer at some animal shelters but your parents must agree.

At 18 you can volunteer for many jobs.



## CHILDREN IN NEED

You can fundraise for charities at any age and schools are a good place to organise activities.

BBC Children in Need is a great way for kids to help other kids.

In 2013 £30 million was raised.

WHAT COULD I BE?  
iBE?  
CONSIDERING THE AGE 9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100

## FOOD FOR THOUGHT...

2015 - YEAR OF SCOTLAND'S FOOD AND DRINK

WCIB ISSUE 3  
FOOD & DRINK  
DUE OUT IN EARLY 2015

Eveningtimes sundayherald



I swear  
tell the truth.



COURT!



## Places

There are four types of court in Scotland. Together they are referred to as the judiciary or the executive and importantly are independent from government.

High Court - Criminal Cases  
Court of Session - Civil Cases  
Sherriff Court - Criminal and Civil  
Justice of Peace or JP Courts - Criminal and Civil

Civil Courts deal with disputes between individuals.

Criminal Courts deal with crimes and have a judge and jury.

## People

The Judge

The Accused

The Lawyers and who they represent

The Jury (15 for criminal court and 12 for civil court)

The Witnesses

The Court Officials

The Police

The Media

The Public

## Procedures

A crime is reported to the police.

The police investigate the crime and if there is enough evidence they will prepare a report for the Procurator Fiscal.

The Procurator Fiscal (PF or Fiscal) looks at the report and decides if there is enough evidence to bring a case to court and which court the case should be heard in.

At the conclusion of a case three verdicts or decisions are possible - not proven, not guilty or guilty.

## The Courtroom

Judges are called, My Lord or My Lady.

A justice of the peace is called, Your Honour.

The clerk of the court helps the judge to run the courtroom.

The court or bar officer calls witnesses and shows them what to do.

There are always at least two lawyers, one prosecuting and one defending.

If you are between 18 and 70 you could be called up for jury service.



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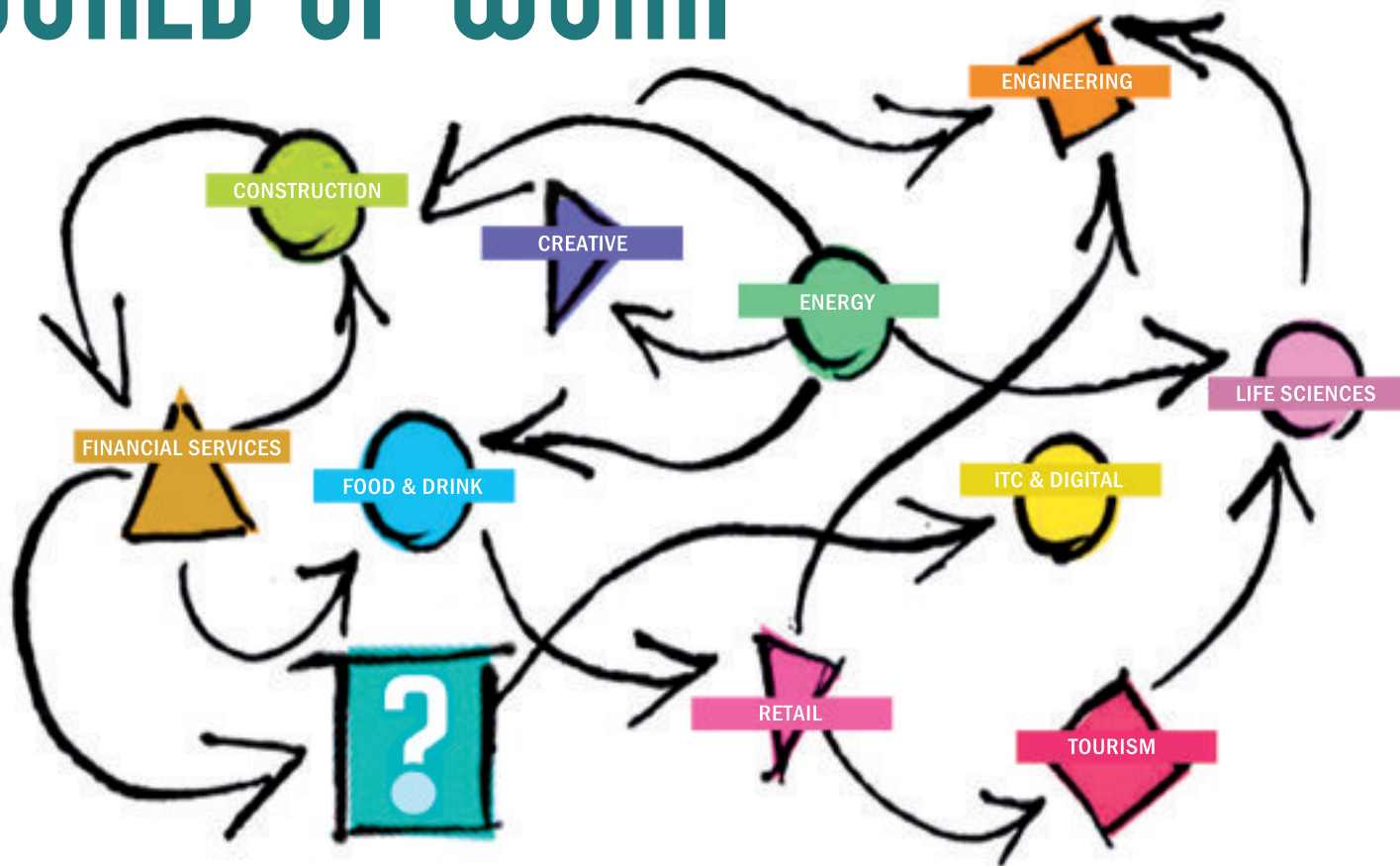
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# Main Sponsor Pages for Parent's Pull-Out



## Connecting your child's education with the WORLD OF WORK



Helping parents to support and guide their children to identify the many routes to successful and rewarding jobs and careers is important.

Being well prepared for the world of work and having the knowledge, skills and experiences employers are looking for is really important. That is why we want to increase the opportunities that prepare your children for this while they are at school.

It's never too early to start thinking and talking to your children about life after school. For some children this will mean further education or training, while others

will find their way straight into the workplace.

Whatever the future holds, there's a range of options to help guide tomorrow's workforce into the job or career that's right for your child.

Over the next four pages you'll find stories and ideas about some of the choices and new opportunities that are open to young people, and the value that employers can add. Also suggested websites for more ideas and information. Together we can help prepare young people for their future learning, life and work.

In partnership with



# Following Different Paths

Today, as a parent or carer of an S1 child, you will already be familiar with Curriculum for Excellence. You'll know that up until the end of S3, your child should be benefitting from a broad general education as part of their journey from early years into their adult working life.

From S4, your child will enter the senior phase of the curriculum which is ultimately about helping young people move to the next stage – whether that is college, university, training or employment. Schools and their partners (for example colleges and employers) are working together to offer a range of pathways that better meet the different needs, interests and future career aspirations of young people.

It wasn't perhaps too long ago that it was harder for young people to access personalised learning, that catered for their individual needs and aspirations. The introduction of Curriculum for Excellence provides flexibility that will allow learners to play to their strengths and develop skills necessary for the modern world of work. This approach has been backed by employers who are keen to see young people leaving school with the kinds of skills that will stand them in good stead should they decide to go straight into the workplace. Such skills are also valuable to young people whose initial choice is further learning or training.

The responses to these challenges from the various education bodies who are supporting this publication have been extensive, progressive, inclusive and with the individual learner at the heart of everything. Here we consider some of these in more detail:

- A summary of the Commission for Developing Scotland's Young Workforce report.
- A look at Modern Apprenticeships.
- Spotlight on two Scottish business growth sectors: ICT and financial and business services.

## Developing Scotland's Young Workforce

*"It is important that all young people in Scotland are provided with the opportunities to develop and use the skills and abilities necessary to become an active part of the labour force and to maximise the benefits to both..."*

*Sir Ian Wood, Education Working For All!*

Being well prepared for the world of work and having the knowledge, skills and experiences employers are looking for is really important. That is why we want to increase the opportunities that prepare young people for this while they are at school.

In order to improve Scotland's approach to vocational education and training, the Scottish Government set up an independent commission to look at ways this could be done.



Its recommendations include the need for:

- A greater focus on employability in school.
- Highly valued vocational education which engages significant industry support.
- A college system fully focused on employability.
- Extending the breadth and reach of apprenticeship opportunities.
- A system underpinned by industry engagement.
- Actions to address existing under representation and segregation of particular groups of young people within vocational education.

All of this aims to:

- Provide your children with work-relevant education.
- Help employers shape and benefit from Scotland's education system.
- Above all, help your children make informed and ambitious choices about the jobs and careers they want to do when they leave school.

To read the report 'Education Working for All!' in full see:  
<http://www.scotland.gov.uk/Publications/2014/06/4089>

# Another Way: Modern Apprenticeships

*For young people trying to decide between getting a job or continuing education, Modern Apprenticeships can offer the best of both worlds. By combining working and learning, Modern Apprenticeships provide the skills, experience and qualifications that employers are looking for.*

Scotland's employers need new talent. That's why lots of the biggest, best and brightest companies are on board with Modern Apprenticeships.

Modern Apprenticeships are an opportunity for young people to get the skills and experiences that count, and work towards a qualification that is valued and recognised by industry – all while earning a wage.

Currently there are around 80 different apprenticeships covering a wide range of job types from many industry sectors including the creative industries, energy, hospitality and tourism, construction and building, IT and financial services.

Modern Apprenticeships contain a mixture of theory and practice, so in addition to developing practical skills specific to the job, an apprentice will achieve a Scottish Vocational Qualification (SVQ) or equivalent, available at four different levels, so employers can see what you have achieved. They are also accredited by the Scottish Qualifications Authority (SQA).

The wide variety of Modern Apprenticeships available are all designed to allow your child to develop five core skills - IT, problem solving, numeracy, communication and working with others. These skills are attractive for employers, and can help build confidence and personal development.

Modern Apprenticeships generally take between one and four years to complete depending on the level of the apprenticeship, ability and the industry sector, and you earn a wage.

There are more than 25,000 new Modern Apprenticeships each year in Scotland.



## Help your child plan their future

*My World of Work brings together the course, job and career-related information you need to support your child.*

For more information visit - [parents.myworldofwork.co.uk](http://parents.myworldofwork.co.uk)



Image courtesy of the National Parent Forum of Scotland.

## Sector Spotlights

# Traditional values *with a* modern twist



It wasn't so long ago the best our own parents might have offered by way of careers advice would have been to do something 'sensible' or 'steady' before listing the few careers with which they themselves were familiar and they judged fit that bill. Alongside teaching, banking was certainly a firm favourite in my house.

But much has changed in the thirty plus years since I was on the receiving end of such parental wisdom. Firstly, the industry has changed dramatically. While banking remains the most obvious and arguably the largest element, the sector now includes such services as asset management (investments), insurance, pensions and financial 'intermediation' - that's people like mortgage brokers and independent financial advisors to you and me, and I'm not sure they even existed in 1975.

In Scotland the sector is growing, and the demand for many of the softer skills is still apparent, according to Ian Hanson, sector manager of Skills Development Scotland. "The sector is looking for qualities, not just qualifications", says Hanson. "Teamwork, initiative, an understanding of how the business operates and the 'right expectations' are highly prized".

Another big change in the sector appears to be the multiple routes into the careers they offer. Modern Apprenticeships in areas such as retail (high street) banking, insurance, investments and pensions, all supported by professionally recognized qualifications, is just one example of an alternative to graduate entry.

Moving forward, the changing nature of the demand for these services - the seemingly unstoppable drive to embrace technology and digital solutions - offers some suggestions as to the likely future employment potential of the sector. So if your son or daughter appears to be spending either too much time inside playing digital games or outside playing team sports, both could be the start of a career in financial services.

With multiple ways into the industry and countless roles within what is evidently a growing sector, such a career sounds eminently 'sensible'. I must be getting old.

*Tim Coulson, Publishing Director of What Could I Be? was in conversation with Ian Hanson, Financial and Business Services Sector Manager, Skills Development Scotland*

### Resources for parents -

**Developing Scotland's Young Workforce**  
[www.scotland.gov.uk/Publications/2014/06/4089](http://www.scotland.gov.uk/Publications/2014/06/4089)

**My World of Work**  
[parents.myworldofwork.co.uk](http://parents.myworldofwork.co.uk)

**Education Scotland**  
[www.educationscotland.gov.uk/thecurriculum/whatiscurriculumforexcellence/](http://www.educationscotland.gov.uk/thecurriculum/whatiscurriculumforexcellence/)

**Scottish Qualifications Agency**  
[www.sqa.org.uk/skillsforwork](http://www.sqa.org.uk/skillsforwork)  
[www.sqa.org.uk/npa](http://www.sqa.org.uk/npa)  
[www.sqa.org.uk/cfeforyoungpeople](http://www.sqa.org.uk/cfeforyoungpeople)  
[www.sqa.org.uk/mysector](http://www.sqa.org.uk/mysector)

## ICT AND DIGITAL TECHNOLOGIES: THE SECTOR THAT KEEPS GROWING

In days gone by, a standard benchmark for one's age was the youthful appearance (or otherwise) of police officers. Today, it is more common to refer to the pace at which technology is changing - faster now than ever before.

It took radio 38 years to reach a word-wide audience of 50m people. It took Facebook just 2. We live in a world of apps and games but we would be mistaken to believe that technology is just about the latest consumer this or throwaway that.

"The industry stands alone but it is also an enabler", says Claire Gillespie, ICT and Digital Technologies Sector Manager at Skills Development Scotland. "It has a huge role to play in virtually all businesses."

The jobs and careers in this sector are also changing rapidly. While there is current (and likely future) demand for specialist graduate skills the sector has recently launched a Modern Apprenticeship in Information Security. It is forecast that the market for information security products and services will grow by around 10% year on year.

Society ascribes various stereotypes to different industries and ICT is no exception. But the ICT industry is working very hard to challenge those stereotypes and one way this is being done is talking to schools, teachers, students and parents.

While there may always be a focus on numeracy, analytic and computational skills, the sector is increasingly recognising the importance of the commercial awareness of those entering the sector. The application of technologies in business and throughout society such as through big data is perhaps the most interesting to me. (See also the use of data by the NYFD on page 14 of this edition of What Could I Be?)

In business, technology is a driver of innovation as well as helps to streamline and lower costs, reach larger and new markets, understand consumers better, deliver more tailored products and services, design better products and services than competitors and so on.

Develop strong numeracy and ICT skills and your child could find themselves in a very rewarding, challenging and often very well paid job. Add a genuine interest in how and why Facebook works commercially (rather than just what it does) and they almost certainly will.

However fast, at least on the surface, technologies appear to come and go, they will remain central to almost everything in the future. Who knows, they may even make police officers look older.

Preparing you for the world of work



# RECYCLE DUCE USE and more...

THERE IS A SAYING; ONE PERSON'S JUNK IS ANOTHER PERSON'S TREASURE. IT'S IMPORTANT FOR US ALL TO THINK ABOUT THE RUBBISH WE MAKE AND WHAT WE CAN DO WITH IT.

Ten years ago the UK had one of the lowest rates of recycling in Europe, now those rates have risen faster than any other country.

Around 600 million tonnes of products and materials enter the UK economy each year but only 115 million tonnes of this gets recycled.

**There are over 140,000 people working in waste management and recycling in the UK.**



*Massive elephant made from recycled water bottles... Now that is impressive!!*

## WORKING and LIVING on RUBBISH DUMPS

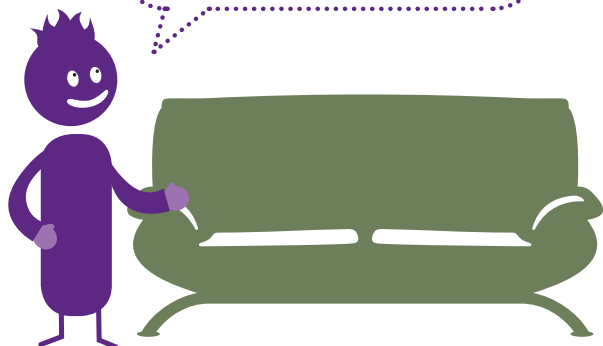
JOB IN WASTE MANAGEMENT AND RECYCLING IN THE UK INCLUDE EVERYTHING FROM COLLECTION TO OPERATIONS, LOGISTICS AND HEALTH AND SAFETY.

In some poor countries children live and work on huge rubbish dumps, often right in the middle of city centres. Small Steps Project is a charity who deliver emergency aid and provide items to protect people from the dangers on rubbish dumps. This can include shoes, gloves, clothing, mosquito nets food and water.

Small Steps Project also helps get children from rubbish dumps into education.



Research shows doubling the number of sofas that are re-used, could save **52,000 TONNES OF CARBON DIOXIDE.** That is a big help for the environment.



## ?! DID YOU KNOW?

We throw away more than **7 MILLION TONNES** of food and drink every year.





## LINEAR ECONOMY

is about make, use and dispose.

## CIRCULAR ECONOMY

is about re-manufacturing, repairing, reusing and recycling. Moving towards a circular economy could mean 100,000 new jobs in the world within five years. But not enough people know about it.

## RE-MANUFACTURE

The "Model U" concept car is made of compostable parts (think compost in gardens). For example the car top is made from a corn based biopolymer and the seats are covered by fabric which can be recycled over and over again.

## PERSONAL RECYCLING

Although we might be putting our bins out each week, thinking about recycling as part of a product's design is getting more and more people talking.



All these great ideas about reusing and fixing things means we could save money, right?

**HEY iDA I AM OFF TO FIND SOME STUFF TO FIX.**

Are you coming?



**RE** CYCLE  
DUCE  
USE

## REPAIR...

Sugru is a lot like plasticine except it's used for repairing your broken things. It's flexible and easy to work with. You can use it anywhere and on almost everything.



[www.sugru.com](http://www.sugru.com)



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is a company owned by

## WILL.I.AM.

He is passionate about recycling products to make new products. Of course they need to appeal to young people and include clothing and furniture.



**I AM GUESSING THIS OUTFIT IS A RECYCLED NUMBER...?**

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WHAT COULD I BE?®

# DETECTION & PROTECTION

SOLVING PROBLEMS FROM CRIME TO SAFETY

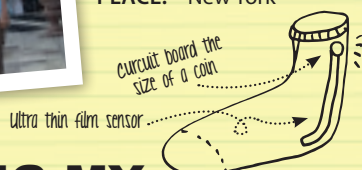


## INVENTION:

NAME: Kenneth Shinozuka

AGE: 15

PLACE: New York



## KEEPING MY GRANDFATHER SAFE

Kenneth was shocked the day he saw a policeman bringing his grandfather home dressed in his pyjamas. Kenneth's grandfather has Alzheimer's. Many people with Alzheimer's wander off without telling anyone, causing lots of worry to family and carers.

Detecting a problem that needed solving, keeping his grandfather safe, helped Kenneth come up with the idea of a wearable sensor. The sensor activates an app so a carer knows when the person is on the move and maybe wandering. The invention has recently won a Science in Action Award and is getting lots of attention from families who know someone with Alzheimer's.

## YOU HAVE THE RIGHT TO ENJOY YOUR PROPERTY PEACEFULLY.

Property can include things like land, houses, shares, licences, leases, patents, money, pensions and some welfare benefits.



Even identical twins have different fingertips.

## FINGERPRINTS

The patterns on your fingertips are utterly unique.

Fingerprints stay the same for life, and if you injure your skin the same prints grow back.

Since the early 20th century, fingerprint detection and analysis has been one of the most common and important forms of crime scene investigation.

More crimes have been solved with fingerprint evidence than for any other reason.

Today, we can also use people's DNA to help with identification.



DNA Molecule

If something happens to our car or property it can often cost lots of money to fix or replace. That's why people have insurance. You pay money every year on the condition that, should you need the money, an insurance company will give it to you.

Does that mean I could take money off INO every month and if nothing bad ever happens to him, I would never have to pay it back?

This is my best plan yet...

BANG!

CRASH!

But LINK it's more about the safety net insurance provides because bad things do happen sometimes.

Proud supporters of What Could I Be? in Scotland

# Solicitors and Estate Agents

[www.blaircadell.com](http://www.blaircadell.com)

# Blair Cadell



# CREATING DATA

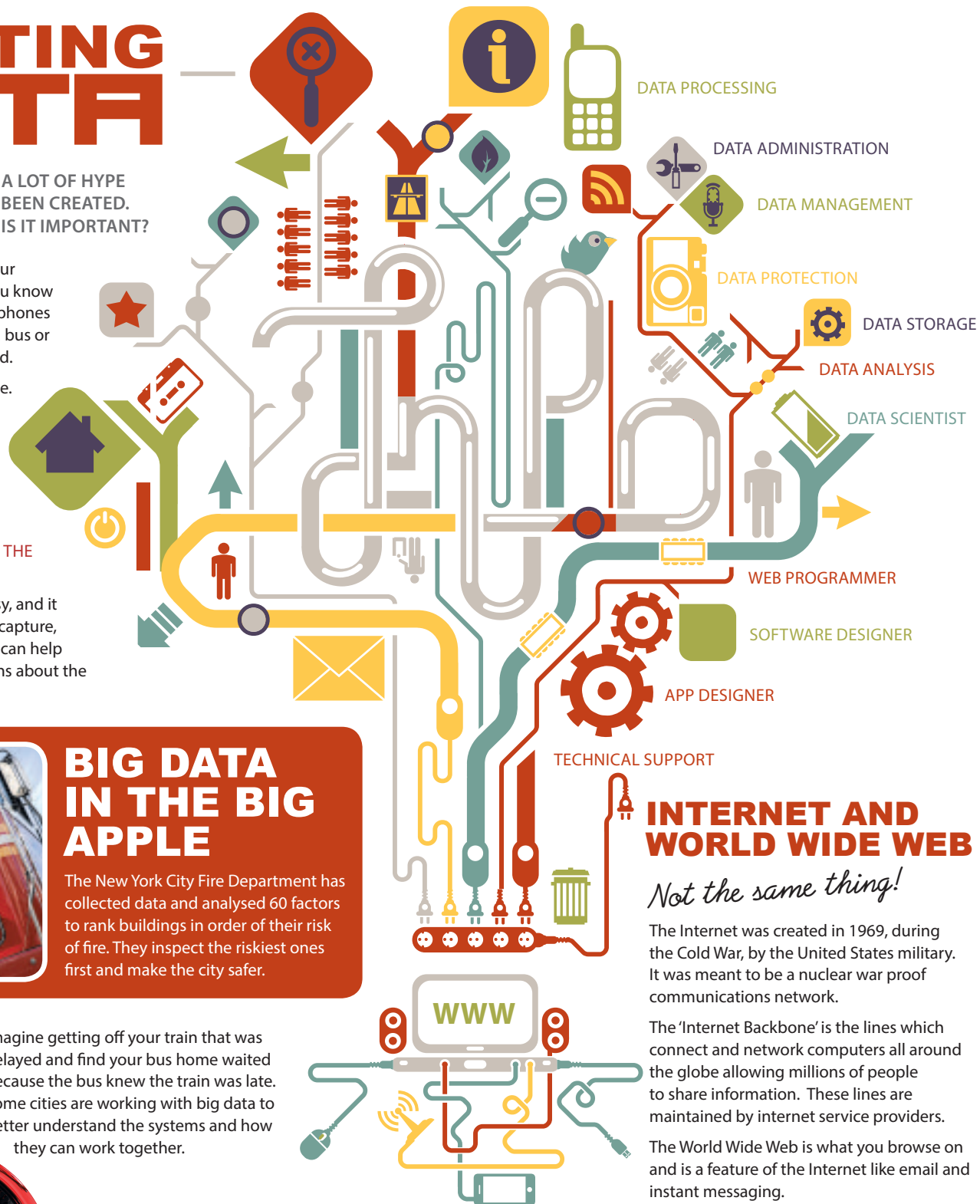
IN THE LAST TWO YEARS A LOT OF HYPE AROUND 'BIG DATA' HAS BEEN CREATED. SO WHAT IS IT AND WHY IS IT IMPORTANT?

You, your mum, your dad, your teachers, in fact everyone you know is creating data. From using phones and computers to catching a bus or a train, data is being collected.

This is probably not a surprise. But what is surprising is that more and more organisations are able to do something with the data.

90% OF THE WORLD'S DATA HAS BEEN CREATED WITHIN THE LAST TWO YEARS.

Big data is massive and messy, and it keeps coming. But if we can capture, store and analyse the data it can help us all to make better decisions about the world we can live in.



## BIG DATA IN THE BIG APPLE

The New York City Fire Department has collected data and analysed 60 factors to rank buildings in order of their risk of fire. They inspect the riskiest ones first and make the city safer.

## THE BUS MIGHT WAIT

Imagine getting off your train that was delayed and find your bus home waited because the bus knew the train was late. Some cities are working with big data to better understand the systems and how they can work together.

## JARGON BUSTER

**INFORMATION TECHNOLOGY** or IT refers to computing technology, networking, hardware, software and the Internet.

**COMPUTER** is a programmable machine.

**SOFTWARE** describes computer programs.

**HARDWARE** are the physical parts of the computer.

**DATA** is information stored by a computer.

**DATABASE** is a data structure that stores organised information.



## THE EXPERTS IN ALL THINGS MAIL AND FULFILMENT

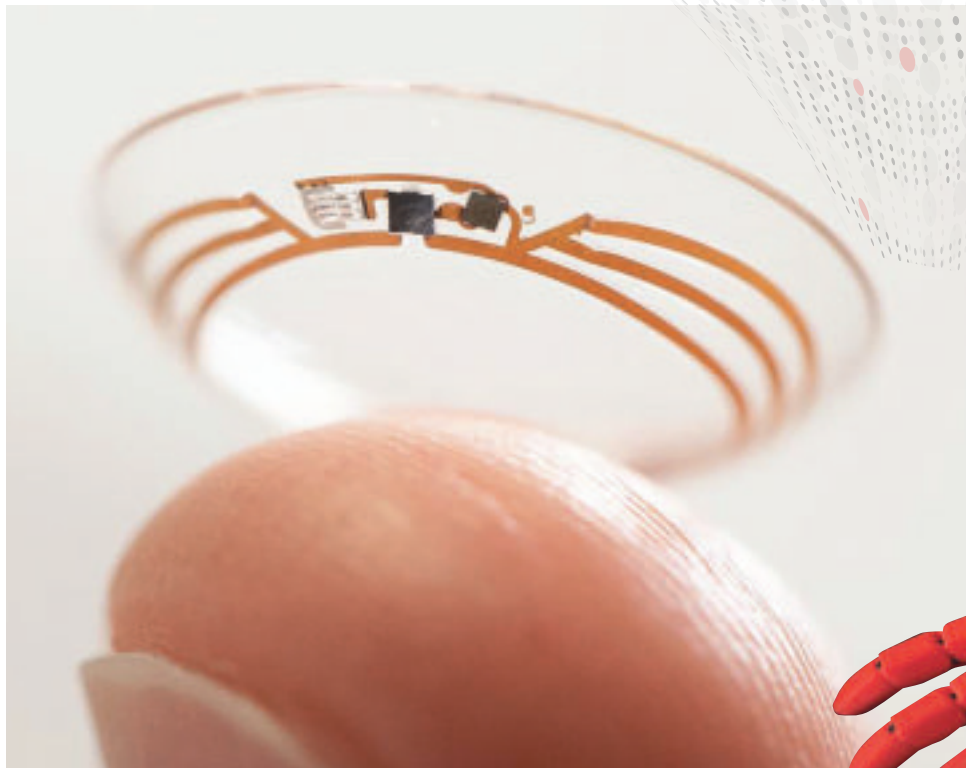
Delivering specialist support to charities and social enterprises.

Distributors of What Could I Be? to schools in Scotland.

See our website for more information [www.amsnet.co.uk](http://www.amsnet.co.uk)

# TECHNOLOGY

USED TO SOLVE PROBLEMS AND HELP PEOPLE



## TEARS IN YOUR EYES



A smart contact lens that contains a tiny sensor is used to monitor glucose levels in tears. The antenna is thinner than a human hair and the sensor is the size of a piece of glitter. The lens will make it easier to monitor blood sugar levels.



## SCREEN READERS

BEING ABLE TO SEE COMPUTER SCREENS IS SOMETHING MANY OF US TAKE FOR GRANTED.

For those with vision loss products like Job Access With Speech (JAWS) can be a great help. This is an automatic screen reader designed by some smart people who saw a problem that needed to be solved.



## ROBO HAND

A designer is using 3D-printed technology to build prosthetic hands that could make kids feel like super heroes. The hand comes with Bluetooth connectivity, a battery, USB charger and Arduino technology, a computing tool that senses the physical world.

Pat Starace is an animator and mechanical designer.

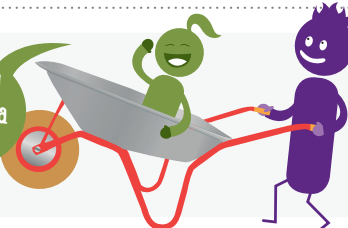
Prosthetics cost thousands of pounds but 3D-printing technology is making this technology much cheaper and with more functions.

WHAT COULD  
**iBE?**  
CAREER IDEAS FOR KIDS & PARENTS



There's so much to learn!

WOW!  
What a ride!



Come on guys let's do it again. SOON.

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# IDEAS FOR ALL



Technology has an impact on nearly every aspect of our lives - from working to socialising, learning to playing.

So if you have not heard about Glow we want to introduce you, if you have heard about Glow we want to remind you how Glow can help you at school and at home.

## Q. What is Glow?

A. Glow is Scotland's national online environment for learning. Glow unlocks the benefits of the internet to support learning and teaching inside and outside the classroom.

## Q. What can we do on Glow?

A. Easily access online services via one login, including: Microsoft Office 365, Blogs, Wikis, Adobe Connect for streaming live, interactive video web conferences and Glow TV. Create exciting spaces for learning and collaboration, store and share loads of information, access resources and tools including features such as newsfeeds and message boards.

## Q. Who is Glow For?

A. EVERY teacher and learner in Scotland can access Glow. That amounts to over 800,000 learners and 50,000 teachers.



## Q. How and where can I get Glow?

A. The Glow service is also accessible from anywhere, at any time, on any device. Glow is potentially one of the largest educational networks in the world.

## Q. Why is Glow so important for learners?

A. The digital age has transformed the way we communicate, network, seek help, access information and learn. This is really important because we are now using a variety of means to learn such as computers, TV and mobile phones.

## Q. If I don't know about Glow who can I ask?

A. Glow is a password protected service, ask your teacher or school or go to Glow Connect for more information and to find out who your local authority point of contact is.

## Bringing the Classroom to Work

*Sarah an S4 student from Calderglen High School in East Kilbride shares her experiences.*

### How does your school work with employers?

The school uses employers and other partners to help our teachers deliver new, accredited courses. One example of this is the 'Apps for Good Programme' which a business partner helped us develop as part of our interdisciplinary curriculum.

Skills development across year groups includes financial education from local charity organisations, a driver safety program from the local Fire Brigade, helping in the local community workshops with the Royal Voluntary Service, mental health training from the Samaritans and supporting others in the school community through volunteering.

I also went with my S3 Design and Manufacture class on a site visit to a business where we were learning at that point in our course, how to make buildings more environmentally friendly. This gave us all the chance to see our learning applied in real life jobs.

### Why do you do this?

By having this real life aspect of learning in the classroom we can understand how we can transfer what we're learning in school to the world of work.

## Useful weblinks



[www.educationscotland.gov.uk](http://www.educationscotland.gov.uk)

[parents.myworldofwork.co.uk](http://parents.myworldofwork.co.uk)  
[www.myworldofwork.co.uk](http://www.myworldofwork.co.uk)

Skills  
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[www.sqa.org.uk/skillsforwork](http://www.sqa.org.uk/skillsforwork)  
[www.sqa.org.uk/hpa](http://www.sqa.org.uk/hpa)  
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