

Work and Leisure 2025: Story Sheet 1 - Jennifer and Henry



Jennifer and the Salon

Jennifer is new to business. She has been out of work for a while, caring for her husband, George. George has Alzheimer's, but the combination of new drugs and other technologies means he can now live a more normal life and Jennifer can go out to work again.

This is important for them both as they are in their seventies and lost their pensions in the 2010 pensions collapse. The Salon is part of a new chain and Jennifer has bought a franchise. Jennifer's salon is at the cutting edge of combined health and beauty practice. It specialises in using new technologies to provide therapies which will make you feel healthier and look better. In addition, Jennifer provides tailor-made counselling and confidence building exercises so her customers feel beautiful outside and in.



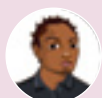
Henry

"Yeah right. Lots of new gene sequences every day, and nobody really knows what they all mean - just more products for the gullible."



Katie

"I am glad I found out I am genetically predisposed to have a slow metabolic rate - now that I know, I can prevent it by doing lots of exercise and stay healthier for longer."



Malcolm

"What's the point of getting older if you're not healthy and good looking? Way to go Jennifer!"

Henry at the Café

Henry's late heading home today. He usually likes to leave the café at 9am but a client held him up. Henry works at the café most nights - he likes the atmosphere, the clientele and the location; and as it's only about three minutes walk from home, it has no impact on his carbon credits.

Henry is a trader specialising in Asian markets for nanotechnology products. The café provides a perfect place to meet colleagues and it has excellent business support facilities. There are sites on the web called 'portals' where Henry can attend seminars, meet his Japanese colleagues in a virtual board room and visit exhibitions all over the world. Best of all it's open 24 hours so he can work overnight when the Asian financial market is open.



Katie

"I would hate to be stuck in the café all night. I work mornings in the local leisure centre, teaching aerobics and yoga. There's a little gang of us and we have such a laugh together."



Malcolm

"I like to have control over my life, especially in business. That's why I prefer to work at home. Those guys in the café spend all their time chatting and drinking coffee. Me, I work all day."



Jennifer

"I'm so glad I discovered the café. I just went in one day looking for tea and cheese cake, and through an investor I met there I have now secured the finance to start my own business."

Jennifer and the Salon: Where we are now



Cosmetics are already high-tech. Many sunscreens contain very tiny particles – nanoparticles – which give them special properties. Department-store face creams contain marine extracts more potent than the active ingredients in eczema creams, and rapid-cooling technology in the packaging helps molecules in the ingredients to shrink so they can penetrate your skin better.

Science could go further and delay aspects of the ageing process. Researchers testing a skin cancer product have found that it reverses the premature wrinkling and blotchiness caused by the sun. And scientists have successfully stopped the muscle wasting that comes with old age using gene therapy (introducing new genes into cells, which give cells fresh instructions).

Health and well-being are determined by both your inherited genetic makeup and environmental factors, such as whether you smoke, exercise regularly or eat junk food. Tiny, cheap genetic diagnostic tests (DNA microarrays) will pinpoint disease genes from just a few of your cells.

As well as finding out which diseases you are prone to, these chips will give information about which treatments work best for someone with your genetic background. Some tests are already being developed to test how individual patients' bodies deal with common drugs for schizophrenia, bi-polar disorder or heart disease. A combination of personal lifestyle advice and treatment focused on prevention rather than cure could become widespread in developed countries.

Henry at the Café: Where we are now



It is already getting easier to work anywhere thanks to better communication technologies and more adaptable 'go-anywhere' office equipment. Scientists are working on plastics that conduct electricity and give off light. When these are perfected we will be able to view television or computer screen images on thinner and more flexible surfaces. Lightweight display screens that you can roll up in your coat pocket could be around by 2008.

In the future, keyboards, electronics and computers could be woven into our clothes. Higher bandwidths and improved communications technology (as found in today's 3G mobile phones) mean that we will be able to send and receive information freely anywhere, be it voice, e-mail or Internet data.

Worldwide Interoperability for Microwave Access (WIMAX) technology has the potential to provide almost unlimited data on the move. Mobile computing devices can form networks amongst themselves, as well as via the Internet. These are called Mobile Ad-hoc NETWORKS (MANET), and can be set up rapidly. Additions such as webcams or videophones mean that we will increasingly see and hear our digital contacts too, which will make working away from the office even easier.

Constantly improving voice recognition software not only frees us from our keyboards, but also has the potential for spontaneous translation into other languages which could make working in different languages far easier.

Work and Leisure 2025: Story Sheet 2 - Malcolm and Katie



Malcolm at the Wheel

Malcolm is very proud of his car. He doesn't make as much money as he would like, or as much as he would like other people to think, so his car is a major investment. Being new, it is fitted with a driver monitoring system.

These have only just been introduced and are standard on all new cars. Gradually they will be fitted to older cars, or those cars will be taken off the road. Basically, it is an onboard computer and sensor system that communicates with other cars, the road systems management network and with smart traffic signals. On certain well-equipped roads it can drive the car itself. It can monitor Malcolm's driving and warn him if he makes a mistake or drives discourteously. People say that pretty soon, if you drive too badly the system will downgrade your licence to provisional and you can only use the autopilot routes.



Henry

"I see no pleasure in a car that nags you. What I really want is an old 2002 Toyota MR2. Those guys really understood the pleasure of the open road!"



Katie

"Malcolm so needs to get out and walk. Who needs a car at all these days?"



Jennifer

"I am so pleased that bad drivers will be forced to look out for the rest of us at last."

Katie at the Park

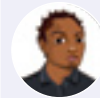
Katie likes to know how well her body is working. She's very proud of her new running gear because it is made from a material that can measure and display her heart rate, but it can also do a lot more.

She doesn't feel completely safe running alone and has put a message on the park's network hoping to find a regular partner. This message can be received by anyone wearing clothes like hers. Her clothes will check for replies the next time she is in the park. If she wants to check out contacts before meeting them she will ask them for limited access to their personal data file. If no-one responds she might decide to run in a virtual park instead. One has just been opened in an old tower block near her flat.



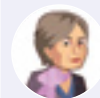
Henry

"I think people are tying themselves up in knots with all this technology. Monitor this and track that. Just go for a run if you want to."



Malcolm

"These connected clothes are so cool - I want a shirt that scans the local area and tells me if there is someone I want to meet around the next corner."



Jennifer

"I think Katie is very sensible. It's important to keep healthy, but safe and secure as well. You never know who you might meet in the park!"

Malcolm at the Wheel: Where we are now



Many cars already have Advanced Driver Assistance Systems (ADAS) which can keep us within the speed limit and detect when we are a safe distance from the car in front (or behind when parking).

Completely automated vehicles moving on tracks, cars that take pre-set routes (cybercars) and vehicles that can be switched from driver to autopilot may arrive in some of our cities in the next 20 years. City commuters would be able leave their vehicles at the city limits and join the city's transport network. Besides automated buses, trains and underground systems, small personal vehicles may be available for shorter journeys.

Within the next five years you may be able to travel from the Heathrow airport car park to the terminal in fully automated vehicles running on tracks. Rome's new exhibition center plans a fleet of cybercars, and drivers on the buses in Castellón in Spain may be an optional extra; depending on which route you are on.

Light detection and ranging (LiDAR) is a radar-like technology that uses short laser pulses to make a quick and accurate measurement of the distance between an aircraft and the ground. It may be used to track vehicles and look for vehicles going over the speed limit.

Satellite-based navigation and positioning technology, such as the Global Positioning System (GPS), can be used to enhance public transport, for example by tracking buses and switching traffic lights to allow them to keep to schedule.

Katie at the Park: Where we are now



Researchers are working on smart textiles for artificial muscles, fitness and health monitoring, as well as tools for location sensing and communication.

Everyday fabrics are becoming more intelligent. Materials with atom-sized features (nanomaterials) and plastics that conduct electricity and give out light could lead to flexible electronic newspapers.

Clothes could get smarter and more functional - jackets and jeans already exist with built-in buttons to operate an iPod. Sports clothing companies have already developed a backpack that is solar powered, can communicate with a phone via Bluetooth and has a control keypad made of smart electronic materials that are waterproof and can withstand being used during extreme sports.

Clothes of the future might include keyboards, electronics and computers. Better communications technology will make it easier to send information in any format, anywhere. If lots of people use this technology it could be possible for us to communicate with each other via our clothes.

Having computers all around us and even in our clothes should help to improve personal security. However, in order for this to happen, the data will have to be sent to complex information processing systems. This could mean that in the future our everyday actions, our movements, purchases, and other personal information could be seen and recorded in increasing detail.