Unit 3

Micro-Fiction

3.1 Introduction to Micro-Fiction

As was explained in the earlier units, the Science-Fiction Prototyping method involves writing a short fictional story, set in the future, around an idea you might have for a new product, business or socio-political system. Such a story is called a Science Fiction Prototype (SFP). The role of the story is **twofold**; to communicate and test an idea with the purpose of acting as prototypes for people to explore a wide variety of futures. These 'prototypes' can be created by scientists, engineers, business or socio-political professionals to **stretch** their work or, for example, by writers, film/stage directors, school children and members of the public to influence the work of professionals. In this way these stories act as a way of involving the widest section of the population to help set the research **agenda** and thereby **empowering** everyone to have a hand in shaping the future. The outcomes of SFPs are used to create new kinds of products, businesses or socio-political structures etc. In this book we are focusing on product innovation outputs.

You are probably most familiar with fictions in the form of books, comprising many hundreds of pages which **facilitate** the creation of a rich and detailed story-based structure. While it would be possible to create Science-Fiction Prototypes the size of a book, they would take many months to write and many weeks to read, so we are looking for a more efficient, and therefore shorter form. Of course there is a balance to be **struck** as, the shorter the fiction, the less detail and **fidelity** it is possible to provide. Given that, to-

Keywords and Phrases

twofold ['tu:fəuld] ***adj.***
dual, double
双重的；两倍的

stretch [streʧ] ***v.***
extend, widen;
拓展，伸展，延伸

agenda [ə'dʒendə] ***n.***
schedule
议程

empowering [im'paʊəriŋ] ***v.***
authorizing
允许，授权

facilitate [fəˈsiliteit] ***v.***
aid, accelerate, simplify
促进， 助长，使容易

struck [strʌk] ***adj.***
discovered, attacked
击打，发现
struck is the past tense and past participle of strike.

fidelity [fi'deliti] ***n.***
exactness of reproduction
精确，不失真

Keywords and Phrases

academia [ˌækəˈdiːmiə] ***n.***
the academic world;
学术界

date, most of the Science Fiction Prototyping practitioners have come from **academia**, it is perhaps not surprising to learn that the size of most Science Fiction Prototypes are equivalent to a typical conference paper, 6-12 pages. However, even 6-12 pages takes many days to write, so for innovation sessions that need to take place in less than a day, an even shorter form of Science-Fiction Prototype has been developed; the Micro-SFP (or µSFP) which will be described in more detail in the following section.

3.2 Micro-Fiction as a Shorthand Innovation Language

Micro-Fiction is a style of writing very short stories, anything from six to many hundreds of words. In the English speaking parts of the world it goes by various names such as **nano**-fiction, flash-fiction, sudden-fiction, postcard-fiction, text-fiction or Twitter-Lit. It also exists in the non-English world some examples being microrrelato or ficcione (Latin-American); nouvelles (France); minute-long or smoke-long (China); Haibun (Japan). There is no agreed specification for micro-fiction but, given the **penetration** of technology into our lives its perhaps not surprising to discover that a popular size is one that fits mobile phone text (160 characters) or Twitter messages (140 characters) which, in English language, equates roughly to 25-30, words. As Science-Fiction Prototyping **arose** from Intel, a high-tech company, this size is widely used for creating µSFPs, a size we will adapt in this book.

Since µSFPs are short, they have the advantage of being quick to write, enabling users to capture and create many ideas in a short time period, in a similar fashion to brainstorming. Thus, many people see µSFPs as being **complementary** to brainstorming, providing a means to wrap a brainstormed idea in a more story-like framework that provides added meaning. From another perspective, a µSFPs is a type of **shorthand** for SFPs, acting as an **interim** step between a raw idea and a full Science Fiction Prototype. However, as the French mathematician and **philosopher**, Blaise Pascal, said in 1657 “I have only made this letter longer because I have not had the time to make it shorter”, meaning that conveying ideas in fewer words is not as simple as it may appear! Thus, one of the goals of

nano [ˈnænəʊ] ***n.***
纳米，奈米

penetration [ˌpeniˈtreiʃən] ***n.***
intrusion into
入侵，侵入；
（对某事的）干扰

arose [əˈrəʊz] ***v.***
get up, originate
呈现，出现，发生 (arise 的过去式)

complementary
[ˌkɒmpliˈmentri] ***adj.***
Supplementary, paired
互补的，补充的，补足的

shorthand [ˈʃɔːthænd] ***n.***
a method of writing rapidly
速记，速记法

interim [ˈintərim] ***adj.***
temporary, transitional
临时的，过渡的

philosopher [fiˈlɔsəfə] ***n.***
truth-seeker, a specialist in philosophy
哲学家，哲人

this chapter will be to provide some guidelines that will simplify the task of writing μSFPs. Once we have presented the skills required to write μSFPs, we will show how they can be **expanded into** full Science Fiction Prototypes.

In order to communicate the use and value of an idea to someone, it needs to be attached to a description. For example, on its own, the word "car" would mean little to someone that was unfamiliar with the term. Everyone that has been in a car will immediately understand the word "car" because they will associate it (in their minds) with an experience they have had. The experience they recall will colour their impression of the value of a "car". Thus, while the brainstorming methods we explored in the previous unit are useful for generating ideas, **unless** we attach those ideas to an experience then the value of the idea will be unknown. This is the purpose of a μSFP, to add words to **convey** an experience that demonstrates the value of the idea. We will **seek** to add words that, not just convey an experience, but turn them into a story, with some emotion. Since we will be aiming to create technologies that will benefit people (and hence **persuade** people to buy the technology) it needs to touch on positive emotions, since we are more **inclined to** want or buy technologies that cause positive emotional responses. In addition, most of us have grown up being **exposed** to and enjoying stories, whether from books, TV cartoons, films or the general **gossip** between people. In this way stories act as a universal language for communicating ideas and experiences, a quality that SFP aims **harnesses** to create a generic innovation language or in the case of μSFP, a shorthand innovation language. Thus μSFP will seek to illustrate an idea, and the beneficial experience of using it, in as short a story as is possible. In this sense μSFPs have roots in the earlier **genre** of fables, parables, anecdotes, sayings, proverbs and maxims which sought to convey an idea and experience with some moral message, in an engaging short story.

By way of an example, consider the story of the renowned 20th Century American author and journalist, Ernest Miller Hemingway. According to science-fiction writer Arthur C Clarke, Hemingway was attending a dinner party where he entered into a good humoured competition with his fellow guests concerning

Keywords and Phrases

expand into
将…扩展 (充) 成

unless [ʌn'les] ***conj.***
if not, without
除非，如果不，除外

convey [kən'vei] ***v.***
pass on, express;
传达，表达

seek [si:k] ***v.***
pursue, request, get
寻找，探寻，追求

persuade [pə'sweid] ***v.***
convince, make somebody believe you;
说服，使某人相信

inclined to 趋向，有…倾向

exposed [ik'spəuzd] ***v.***
open up, uncovered
暴露

gossip ['gɔsip] ***n.***
rumor, hearsay
小道传闻，流言蜚语

harness ['hɑ:nis] ***n./v.***
利用，马具，纽带；控制

genre ['ʒɒnrə] ***n.***
type, kind
类型，种类，体裁

Keywords and Phrases

tragedy [ˈtrædʒədi] ***n.***
disaster, calamity
悲剧，悲剧式作品

science-oriented
面向科学的

civilization [ˌsivilaiˈzeiʃən] ***n.***
culture
文明；文化

first pass 第一遍 (扫描)

ingenious [inˈdʒi:njəs] ***adj.***
clever, inventive, creative
有独创性的，机灵的

crafted [krɑ:ft] ***v.***
made, created
制作，创建

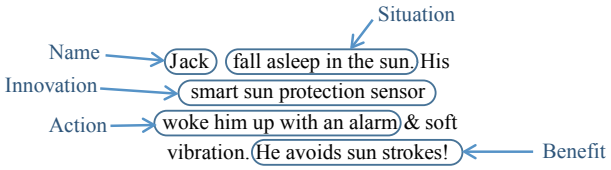
who could write the shortest story. He is reported to have won the bet by writing the following story using only 6 words; "For sale: baby shoes, never worn"! You can see this is a very clever story using the imagery of unused baby shoes to convey the emotions of loving parents and a **tragedy** (or at least a mystery) that engages and moves the reader. Since then, 6-word fiction became a popular (if challenging) genre with numerous web sites appearing to encourage authors to write such micro-fictions. While Hemingway's fiction did not address technology, there are sites that do, with the following being an example of one such 6-word **science-oriented** fiction; "Lie detector eyeglasses perfected: **Civilization** collapses" (Richard Powers). Fortunately, we will not be so ambitious as to write 6-word fictions and, in the following section, we will focusing on creating Twitter / Mobile Phone sized fiction (140 /160 characters) of about 25 words.

3.3 The Basics of Writing a Micro-Fiction

Writing a micro-fiction is easy, writing a good micro-fiction is difficult. However, since we are writing our first micro-fiction let's start with an easy approach and with time and practice the quality will improve. All μSFPs start with a technical innovation; for this you can use one of the ideas you generated in the previous brainstorming unit. Once you have selected the idea (e.g. an innovative technology) you should then choose the name of a fictional person that will use the technology in your story. A tip here is to choose a short name, since it uses fewer characters. Finally, you need to choose a beneficial experience (an action) that will illustrate the use of your innovation. Its sometimes difficult to create a sufficiently short story on the **first pass** so, if that proves to be the case for you, then start big and then reduce it. Clearly, the effectiveness of your μSFP will depend on a number of factors, such as how **ingenious** your innovation is and how attractively you **crafted** the situation, actions and benefit, plus your vocabulary. However, all of these issues will improve with practice so, by way of a first step, simply complete the following simplified template:

[Person] in [Situation] uses [Innovation] to do [Action] resulting in [Benefit]

A 24-word example (from Essex "New Creatives" 2014) is:



As you can see, the short nature of the μSFP makes it hard to convey all the information needed to understand an SFP, so in the examples below, authors were encouraged to add up to 100 words of **supplementary** explanation. Since you are learning these skills, and others are assessing you, then we suggest you do the same.

supplementary[ˌsʌpli'mentəri]
adj. additional, supplemental
补充的，追加的

3.4 Examples of Micro-Fiction

In order to illustrate the workings of μSFPs, below we will present a number of examples based around the Technological **Singularity**'. As you have discovered in the exercise in Unit 1, the technological singularity is moment in the future when scientists imagine that machine intelligence will **surpass** human intelligence. It is argued that the **emergence** of super-intelligence is likely to come from one of three **mechanisms** "Whole Brain Emulation", "Transhumanism"or "The Intelligence Explosion" which the example μSFPs are grouped under.

singularity [ˌsiŋgju'lærəti] ***n.***
distinctiveness, marvel
奇点，奇特，奇迹

surpass [sə'pɑːs] ***v.***
exceed
超越，胜过，优于

emergence [i'mɜːdʒəns] ***n.***
appearance, rise
出现，发生，暴露

mechanism ['mekənizəm] ***n.***
method, system, tool
机制，技巧，途径

emulation [ˌemjʊ'leiʃn] ***n.***
imitation, simulation
仿效，仿真，竞赛

consciousness ['kɔnʃəsnis] ***n.***
awareness, perception, cognizance
意识，知觉，觉悟，感觉

donor ['dəʊnə(r)] ***n.***
giver, contributor
供体，施主，捐赠人

resurrection [ˌrezə'rekʃn] ***n.***
revival, rebirth
复活，再生

Whole Brain Emulation

Whole brain emulation describes a vision whereby it would be possible to build an artificial version of the brain, such as a software simulation, which should function (cognitively) like the real brain. If this was done at a sufficiently detailed level, the hope would be that a feeling of individuality and self (**consciousness**) would exist in a form that is indistinguishable to the feelings of the **donor**. In many senses, dreams might be regarded as a type of simulation.

1. Death is optional-Dr Xu spoke compassionately to Jun "it's terminal but, if you can afford a **Resurrection**13 scan, we can rebuild Lei & you in SimHeaven". (24 words, 132 characters)

- this μSFP imagines two types of technology, a very advanced scanner (the Resurrection13) that is capable of capturing the most

Keywords and Phrases

Keywords and Phrases

dazzling ['dæzliŋ] ***adj.***
stunning, bright
耀眼的，光彩夺目的

blended ['blendid] ***adj.***
mixed, combined
混杂的，数种混合的

alter ['ɔ:ltə(r)] ***v.***
change, modify
改变，修改

persona [pə'səʊnə] ***n.***
face, facade, assumed role
面具，假面，角色

susceptibility [sə,septə'biləti] ***n.*** sensibility
感受性，感情

masquerade [,mæskə'reid] ***v.***
disguise, pretense
伪装

surreptitiously [,sʌrəp'tiʃəsli] ***adv.*** secretly
偷偷地，秘密地

genetic engineering
基因工程，遗传工程

detailed workings of the brain (physical, electrical, chemical and biological) and another advanced virtual-reality technology that can use this to reconstruct simulations of people that are indistinguishable from their original self.

2．Make Up—Amy, you look and sound **dazzling**, Ben will fall in love instantly; yeh, amazing what PersonaShop3 can do for a girl! (21 words, 115 characters)

—This μSFP imagines that either a fully simulated world has been built, or that **blended** reality is in widespread use (e.g. more advanced versions of Google glass). To those ends, it describes a new type of "make-up" set, PersonaShop3, which allows the user to **alter** aspects of their own physical appearance and **persona** (as seen through the blended-reality glasses).

3．Existence—Zoe, you've been my life-long friend on SentiBook; today the news feed reports most social network friends don't exits, are you real? (22 words, 133 characters)

—Our lives are becoming increasing virtualised through, for example, friendships via social networks with people we might never have met physically. As we approach the singularity AI will improve the ability of machines to mimic real people, enhancing the **susceptibility** of people to form relationships with intelligent agents **masquerading** as people, either openly or **surreptitiously**.

Transhumanism

In simplistic terms, Transhumanism refers to the use of science to artificially augment human intellectual and physical capacities in some massive way. This could happen, say, through **genetic engineering** or add-on/replacement artificial parts.

1．Smart Friends—So, old friend, you finally replaced your wet-brain with a FreeWill3 quantum unit; yeh, & I'm replacing old friends with smarter ones! (22 words, 134 characters)

—This μSFP closes the loop on the current computing trend of building artificial brains (neural networks) by copying nature, by replacing nature with those artificial copies. Also, it raises (indirectly) the question of are we more than our brain? If we replace our brain would be still be the same person.

2．Clone World—Tom, this morning mend the cooker, take the kids to playland & go to work. Yes, dear we will do that! (21

words, 101 characters)

—This μSFP raises the **intriguing** possibility that, when it becomes possible replace all the parts in a human, it will be possible to clone entire people (or cyborgs). In this story there are at least 3 clones of John (the three **simultaneous** jobs he is doing).

3. Upgrade—Max read the **side-effects** warning on the **mental-arithmetic** upgrade nanobot-pills; "some users report reduced emotional behaviour" (16 words, 129 characters)

—Who wouldn't want to have better memory, improved sensory perception, more knowledge and improved analytical ability? However, how will such changes affect our lives and wider society? How will such **augmentation** be supplied and regulated.

The Intelligence Explosion

The intelligence explosion describes a **cumulative** cycle where ever smarter tools (perhaps robots) make even smarter tools (perhaps other robots) resulting in an intelligence explosion (a rapid acceleration of machine intelligence).

1. Viral Intelligence—Jane's sleepy eyes said it all, another smart home with a viral-intelligence infection, call the singularity exorcists! (17 words, 119 characters)

—This μSFP suggests that smart homes are **susceptible** to viruses and that intelligent-agent viruses might migrate, grow and **mutate**; continuously evolving (behaving like ghosts in smart homes!) .The key message is that computer viruses are already dangerous but may get considerably worse when they become super-intelligent viral agents!

2. Collective Consciousness—Silently Zac prayed for inspiration; thanks to his SentiNet brain implant from the 7th Day Evangelists his prayers were soon answered. (21 words, 134 characters)

—This μSFP raises the possibility for using future networks to directly connect brains together to create a type of crowd sourced super-intelligence. It speculates about whether accelerating technology development might eventually facilitate an artificial form of connected consciousness that is **analogous** to **telepathy**.

3. Upgrade-Sentient is down again! Be warned wise reader, the Singularity will be **preceded** by an **unprecedented** torrent of

Keywords and Phrases

intriguing [in'tri:giŋ] ***adj.*** fascinating, interesting
有趣的，迷人的

simultaneous [ˌsiməl'teiniəs] ***adj.*** concurrent, coincident
同时的，同时发生的

side-effects 副作用

mental-arithmetic 心算

augmentation[ˌɔ:gmen'teiʃən] ***n.*** increase, expansion
增强，增加

cumulative ['kju:mjuˌleitiv] ***adj.*** accumulative, aggregate
累积的

susceptible [sə'septəbl] ***adj.*** sensitive, impressionable
易受影响的；易感动的

mutate [mju:'teit] ***v.*** change, undergo mutation
改变，突变

analogous [ə'næləgəs] ***adj.*** similar
类似的

telepathy [ti'lepəθi] ***n.*** mind-reading, thought transference
心灵感应，读心术

Keywords and Phrases

precede [pri:'si:d] ***v.*** head; come first
领先，在前面

unprecedented [ˌʌn'presidəntid] ***adj.*** unparalleled
空前的；无前例的

literal interpretation
文字解释，字面含义

implicitly [im'plisitli] ***adv.*** indirectly
含蓄地，暗中地

spontaneously [spɔn'teiniəsli] ***adv.*** instinctively, impulsively
自发地，自然地

upgrades! (19 words, 121 characters)

—This μSFP makes a **literal interpretation** of the intelligence explosion; seeing it as a rapid cycle of improvements (upgrades) signalling the onset of a massive intelligence explosion. In doing this it questions, **implicitly**, how will the singularity happen, what might be the signs, could it **spontaneously** emerge, will it happen on an isolated system, can it be contained, or would it escape like a virus into the wider world?

Exercises

1．Discussion: The Future of Computer Design Methods
2．Oral: Presentation of Your μSFP
3．Writing: Write Your Micro Fiction

Each of the groups should write a set of μSFPs (each group member should aim to write and contribute at least 1 μSFPs) based on the steps described earlier and summarised below:

• Step 1：Group discuss and design

Every group should identify up to 3 of their best ideas from the brainstorming session and use these as the basis of writing their μSFPs.

Requirement: Different groups can have similar topics but their SFPs must be unique (not copied). The chosen technology should be futuristic (not something that exists) and relevant to computer science.

• Step 2：Write your μSFPs

Each group member should write a μSFP (up to 30 words long) based on one of the groups 3 best ideas. To help you start, use the writing template provided in unit 3.3. Each μSFP should be accompanied by a short explanation (<100 words).

• Step 3：Group/class presentation

Each group should meet and decide which three of the μSFPs created by the group members will be presented by the group leader or convener to the class. The group members should assist in preparing the presentation (and, where appropriate, in giving the presentation).