Answers to Exercises

Chapter 2: Open Innovation

Have a look at the table below and indicate whether each activity is more about inside-out or outside-in open innovation. It may also be helpful to identify some examples for each:

	Inside-out open innovation	Outside-in open innovation
Market scan and buy		Examples: company purchasing a start-up that develops an innovative product or service; governmental agency contracting an external consultancy to provide input to an innovative policy framework
Hackathon		Examples: a government department using a hackathon to develop tools to improve employment opportunities for people with disabilities; a company running an open hackathon competition to solve a software issue
Collaboration by design		Examples: a manufacturer of sports equipment collaborating with athletes in the development of a new device; international development organisation engaging in strategic partnerships with grassroots organisations in the countries where they work
Spin-off	Examples: eBay spinning off PayPal; team of researchers at a university create spin-off to take a new technology to market	

Innovation market		Examples: Incubator organisation that matches start-ups to challenges submitted to them by external partners; organisations that support others in crowdsourcing and testing ideas
Innovation platform		Examples: A regular round-table event involving a diverse set of stakeholders collaborating on an innovation challenge (such as a local council bringing together a diverse set of stakeholders to find new solutions to waste reduction); a technology that makes it easier to gather and develop ideas
IP licensing	Examples: Pharmaceutical company licensing a compound to another bio-tech form working on a new medicine; sometimes companies share IP to drive innovation, an example for this is Tesla's open source philosophy	
Joint venture	Examples: A university innovation centre and a medical device company may have a joint venture to trial new diagnostics and interventions; or there is the example of a Crocs and KFC venture which developed KFC styled crocs with a fried- chicken scent…	
Crowdsourcing		Examples: NASA ran a challenge to crowdsource algorithms to enhance the efficiency of solar panels on the ISS; like many companies Starbucks use crowdsourcing to obtain ideas for improvements ranging from the provision of free Wi-Fi to cake pops and the design of limited edition cups.

Chapter 3: Open Innovation

Answers to the mini quiz: 1a, 2b, 3c, 4b.

1.   What was the key tip in this chapter?
    a.   Fall in love with the problem.
    b.   Fall in love with the solution.

2.   Design Thinking is best described as a…
    a.   Technology-centred approach.
    b.   Human-centred approach.
    c.   Solution-centred approach.

3.   Which of the three concepts are used in many Design Thinking techniques?
    a.   Ideas, invention, innovation.
    b.   Technology, applications, platforms.
    c.   Diversity, divergence, convergence.

4.   The best way to learn about Design Thinking is by…
    a.   Reading this chapter.
    b.   Doing it.
    c.   Observing a workshop.

Chapter 5: Open Innovation

Below we list some of the Design Thinking activities you have now tried out. We would like you to bring these into the correct running order by numbering them and write one to two–2 sentences describing what each activity aims to do. If you want to use these methods in other contexts it is really helpful to have a clear understanding of what they are about!

Activity	Order (1–8)	Objectives
As Is Scenario	6	As-is Scenario Maps help us to explore a wider problem in a particular context and situation as it is experienced by a user. This allows us to come to some collective understanding of user experiences and workflows. As Is Scenarios lend themselves to the identification of pain points and opportunities and as such are often used to identify the right problem to solve and to launch into idea generation.
Persona	4	The development of a persona helps to better understand and have empathy with user experiences, behaviours and needs. Personas help to provide an insight into how a problem is experienced as opposed to a more abstract examination of facts from the perspective of an outsider. (Therefore, a persona should not be confused with a role.)
End User Categories	3	The identification of end user categories helps to structure a stakeholder map and to select on those users that are of particular relevance to a given project.
Big Ideas	7	Big ideas is a tool for idea generation in teams. It aims at the creation of a broad range of diverse ideas. Through divergence and convergence ideas can flow and bounce off one another, triggering new ideas and synthesizing others.
Empathy Map	5	An empathy map helps to deepen our empathy with a given persona and to articulate and question some of our assumptions. It allows us to explore more in-depth the experience of a particular type of user by synthesizing a team's collective knowledge about this user group.
Stakeholder Map	2	Stakeholder maps aim at documenting all the stakeholders that are affected by/involved in/relate to a particular problems or challenge. They help to ensure that no stakeholder is overlooked and provide the basis for the identification of relevant end users.

Prioritisation Grid	8	Prioritisation grids can be seen as a structured and democratic way of reviewing and prioritising ideas. They help the innovation team to identify the best ideas to develop further.
Hopes and Fears	1	The Hopes and Fears exercise encourages team members to identify, articulate and then discuss the expectations (good and bad) they have with a view to a given project. This can enhance problem definition and teamwork.

Chapter 6: Analysing a bad meeting

Watch the YouTube video of a meeting (https://www.youtube.com/watch?v=F1qstYxrqn8). Take some notes on why you think the meeting is run badly.

We list below some of the issues that made this meeting such a bad example:

- **Atmosphere of hostility**: Tone and body language is tense throughout the meeting, at times even aggressive. There is little respect let alone empathy shown in the communication we witness.

- **Lack of introduction**: The host does not introduce herself or the colleagues around the table. She launches the meeting before the guest arrives. She only briefly touches upon the purpose of the meeting. She does not welcome the guest upon arrival. This happens later in the meeting but is done like in a one-to-one situation rather than team meeting. It also turns out that at least one person attending the meeting is not clear about why they are present (which was also not clear to the host who failed to enquire into this at the beginning of the meeting).

- **Disruption and parallel communication**: The guest who arrives late just throws his business cards across the table and then proceeds to unpack. The host shows how annoyed she is about this disruption, which is not helping. The guest introduces himself to team members whilst the host is talking. When later on the guest provides some input to the meeting, other team members are not listening and engage in a parallel conversation.

- **Dismissive and disrespectful behaviour**: In front of the guest, the host addresses a junior colleague in a very bossy way, rejecting her work. She provides dismissive feedback that lacks clarity and detail. She criticises another team member for a previous performance and commands her to read a book in a bossy or at least patronising way. Team members roll their eyes in response to feedback received. The guest is told off for the late arrival in a disrespectful way.

This is clearly a very badly run meeting – and we are sure you identify some additional points that have gone wrong. Have a discussion with your team. Have you all picked up on the same points? How could some of these problems have been avoided?

Chapter 6: Applying the story spine

Think back to one of the popular Pixar films, such as Finding Nemo. Can you apply the story spine?

1. **Once upon a time there was**… a widowed fish, named Marlin, who was extremely protective of his only son, Nemo.

2. **Every day**… Marlin warned Nemo of the ocean's dangers and implored him not to swim far away.

3. **One day**… in an act of defiance, Nemo ignored his father's warnings and swam into the open water.

4. **Because of that**… Nemo was captured by a diver and ended up in the fish tank of a dentist in Sydney.

5. **Because of that**… Marlin set off on a hazardous journey to rescue Nemo, enlisting the help of other sea creatures along the way.

6. **Until finally**… Marlin and Nemo find each other, reunite and learn that love depends on trust.

Chapter 7: Design Thinking Hills

Below we have included some examples of Design Thinking Hills. Some are a bit better than others. Can you tell why?

1. Young professional banking customers can access and make transactions on their account online and through a mobile app.

This Hill articulates what the solution does but the solution does not appear to be particularly innovative and lacks a wow factor (i.e. most banking apps do that and many banks use such apps already).

2. Citizens with a health emergency can choose which specific hospital emergency department to attend based upon current waiting times and how long it will take to travel to each hospital from their current location.

This is a good example even if a little wordy.

3. Delivery drivers are informed which location to deliver to next using a world class app- based solution.
This Hill is rather vague in what is to be delivered. What is the world class app-based solution? What does it do (better)?

4. Domestic solar panel owners can automatically turn on and off domestic appliances without having to do anything once the system is set up.

This is a good example but could be a little clearer about what kind of 'system' this is.

5. Students can read this book and automatically get an excellent grade.

Unfortunately, this is a bad example because it lacks credibility – it does not really tell us how such automatic allocation would work and omits the engagement and hard work required from students to obtain an excellent grade.