TESSELL▲TE

Tessellate is a digital workplace assistant targeted at coworking spaces. This concept was developed through an innovation process seeking to address a business challenge facing Desk Space, a coworking space in Sydney.

This report will provide an overview of the Tessellate project from problem definition to solution development, as well as a reflection on the collaborative process of developing and pitching Tessellate.

The Problem

Desk Space cannot <u>engage its members</u> due to <u>underutilised</u>, <u>cluttered communication systems</u>.

Preliminary client research unearthed a variety of business problems, ranging from increased building occupancy to internal strategic shortcomings. These problems were assessed and considered in relation to Desk Space's legacy as Sydney's first coworking space, and the organisation's objective of becoming an international change leader in the coworking community. It was decided that low levels of member engagement were the most pressing and costly issue with the potential to be addressed through an innovation process.

Desk Space is one of 90 coworking spaces in Sydney, and part of a growing international coworking community (Rushfaster 2018). Coworking spaces allow individuals and/ or organisations to rent a work space for a flexible time period. These spaces typically revolve around a particular industry or field of work, and afford members the possibility of developing networks and sharing knowledge (Andrade et al. 2017, p. 168). This heightened potential for networking is a key component of most coworking spaces' value propositions; indeed, Desk Space was created around the 'Make it Together' ethos (Desk Space 2018).

At present, Desk Space is failing to fulfil its value proposition. This failure manifests in:
·   Consistently poor attendance and little diversity at Desk Space-run member events
·   Conflict between members, e.g. noise complaints, room booking clashes
·   Siloed workspaces, with few members interacting within and between levels
·   Low engagement on Instagram and with EDMs

Using the **SCAMPER**[1] thinking method these challenges were reframed within a communications context. It was determined that these issues were symptoms of Desk Space's use of multiple, cluttered systems[2] – including Slack, Robin, Envoy and Sonos, each with its own mobile or web app – to connect members with each other and the space. Thus, Desk Space can neither engage its members, nor compete with local and global incumbents, due to cluttered communication systems.

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[1] SCAMPER is an acronym for: Substitute, Combine, Adjust, Modify, Put to another use, Eliminate, and Reverse, rearrange

[2] Furthermore, using data supplied by Desk Space, the ongoing annual cost of licensing and running multiple communication systems was estimated to be approximately $25,700/year.
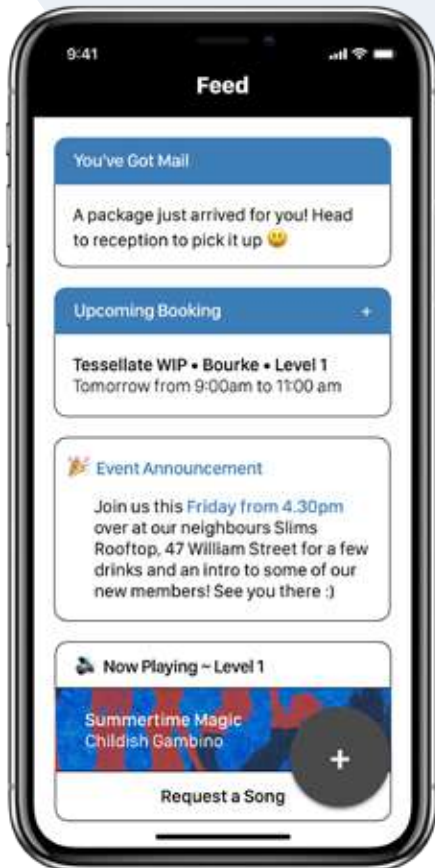
The Solution

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A streamlined mobile platform where
members can explore the space and
expand their professional network
in coworking spaces.
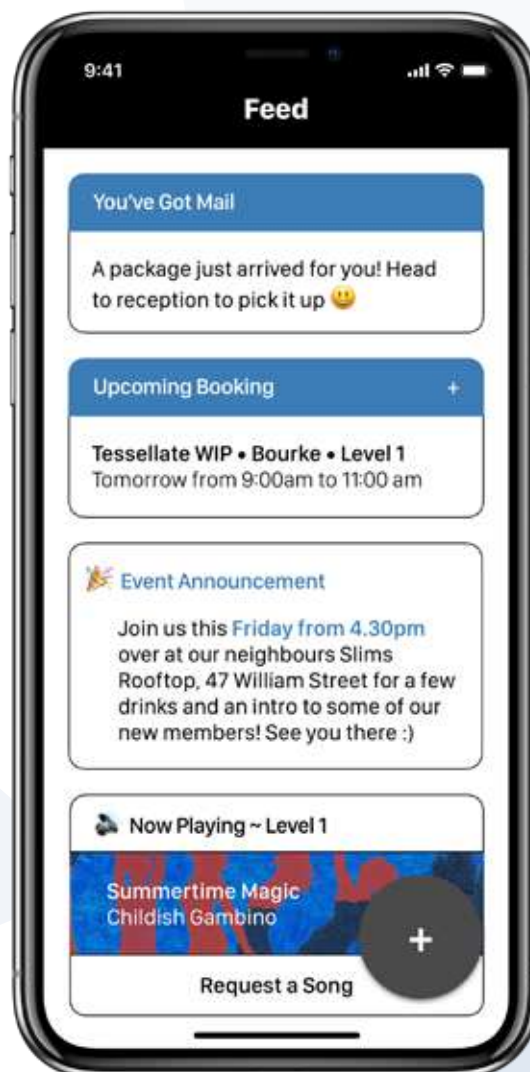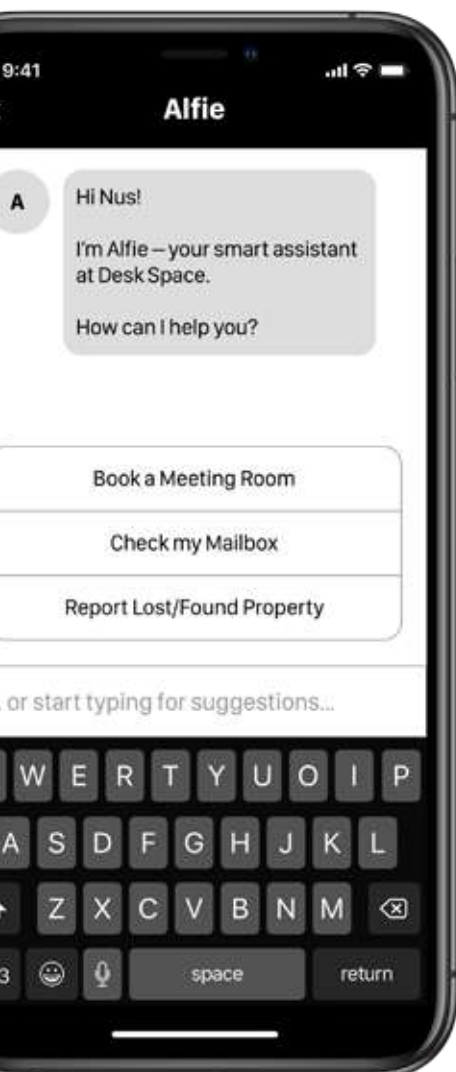
The Solution – Overview

The Feed: Your work day at a glance

The Feed is a dynamic stream of notification cards, offering an overview of announcements, bookings and parcel/visitor notifications among other features. The Feed uses a machine learning algorithm that adapts depending on the individual's patterns of using the app, to make it quicker and easier for each user to find the information and features they need.
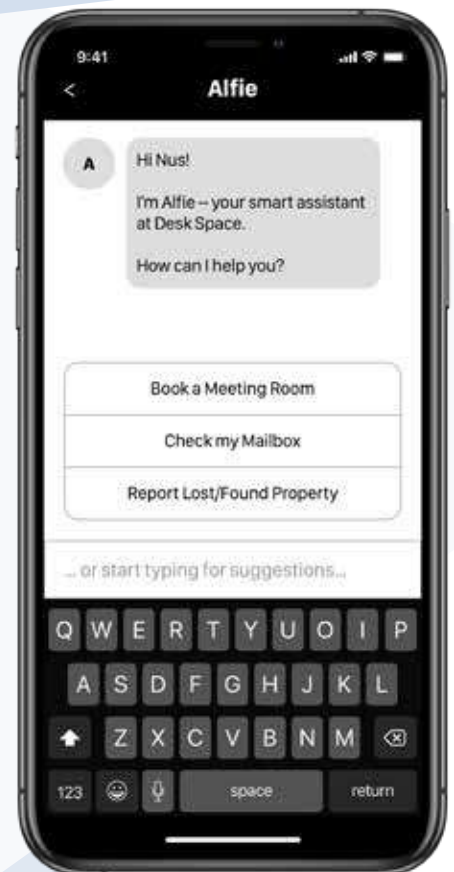
Alfie: Your intelligent personal assistant

Alfie is a smart chatbot that uses a similar algorithm to recommend questions (e.g. "What is the Wi-Fi password?"). Furthermore, Alfie can use natural language processing and predefined information to provide more complex answers, such as explaining that a planned outage is preventing the Wi-Fi from working. Alfie allows members to get a quick and accurate response without needing to email a Desk Space host.

Other notable features

- *Direct API integrations* with common office management systems (e.g. Slack, Robin, sound systems)
- *Streamlined UI*, including a floating action button (pictured on left) that allows users to quickly access key/repeatedly-used features in two taps

The Team

Ellen Law
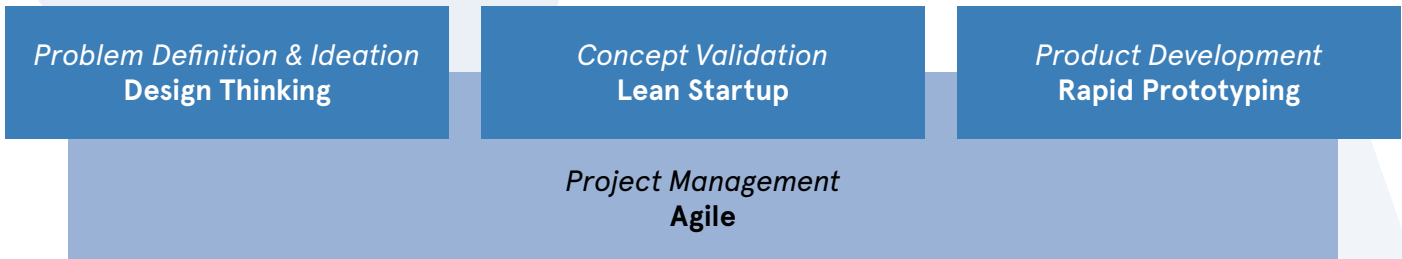Strategist

Nusardel Oshana
Project Manager

Quyen Nguyen
UX/UI Designer

Team roles were determined after each member identified two areas where they excelled and wanted to improve. Work was divided according to these roles, but no hard lines were drawn. As a result, each member had a role in creating or shaping every aspect of the concept, prototype and pitch. As a small team we were able to make most decisions collectively, and often worked on parts of the same task simultaneously (e.g. each prototyping a different screen). We avoided conflict, particularly in the early stages of the project, through breakout exercises where everyone developed their own concept and presented to the group. Having established team values and trust, it was not difficult to make decisions this way.

Individual Contribution

As Project Manager, I oversaw all aspects of Tessellate's development and facilitated the implementation of an Agile/Lean methodology. This involved collaborating with the team to establish expectations, determine the necessary deliverables, fairly distribute work, and set realistic deadlines. Throughout the project, I was responsible for coordinating the team; consolidating individual work into a cohesive prototype and pitch deck; and liaising with our client, Desk Space.

Methodology

Problem Definition & Ideation **Design Thinking**	Concept Validation **Lean Startup**	Product Development **Rapid Prototyping**

Project Management
Agile

The process of creating Tessellate drew on a combination of ideation, validation and development methods, in combination with an **Agile** workflow. In contrast to traditional 'waterfall' workflows, which can be time consuming and prevent a project from delivering a desirable product, Agile software development notably prioritises working software, customer collaboration and responsiveness to change (Cunningham n.d.). In a project management context, Agile provides a framework for creating, embracing and learning from change 'while contributing to perceived customer value' (Dingsøyr et al. 2012, p. 1214).

In practice, Agile involves a constant and consistent process of design, iteration and testing. For instance, in our first meeting for Tessellate, we created a series of wireframes and tested them with low fidelity sketched prototypes. Through designing, iterating and testing wireframes, we were able to decide on the simplified interaction model that characterises the Tessellate user experience. We strived to maintain this level of agility throughout the project, even through to the development of our pitch.

Problem Definition & Ideation

To develop an initial problem definition and product concept, we drew on **design thinking**. This methodology is a simplification of 'designerly thinking' – a range of discourses that view design as a productive, reflexive and/or sense-making activity (Johansson-Sköldberg et al. 2013, p. 124). Put simply, design thinking involves approaching a problem adaptively, and using cumulative knowledge about the problem to define the appropriate 'problem space' where a solution might fit (IDEO 2018; Razzouk & Shute 2012, p. 335). In practice, this involved focusing on client research in the early stages of the project. We conducted individual and group brainstorms to hypothesise the problem space and recognise any internal biases towards a particular focus – for instance, our early definition of the problem prioritised the physical space over communication systems. Employing design thinking – especially in the problem definition and ideation phases – gave the project a clear scope and allowed for a solution that directly addressed the client's problem.

Concept Validation

In this project, the ideal product would both address the problem and offer a return on investment, thus it was important to validate all ideas in a business context before pursuing them. The **Lean Startup** methodology is a prime validation tool as it offers a framework for eliminating uncertainty and reducing costs (i.e. creating 'leanness') in entrepreneurial ventures (The Lean Startup Methodology n.d.; Dingsøyr et al. 2012, p. 1214). The Lean canvas (Figure 1) was a useful practical tool for validating Tessellate as a business, however this was something we struggled with, and this manifested in our pitch feedback.

Desk Space Digital Innovation Concept - My First Canvas

PROBLEM	SOLUTION	UNIQUE VALUE PROPOSITION	UNFAIR ADVANTAGE	CUSTOMER SEGMENTS
# Lack of cohesion -> no engagement # Missed potential # Lack of communication (between members/DeskSpace) # Newsletters not working # PR - one way communication, no conversations # Onboarding new members is difficult - reliant on personal connection	Better signage in meeting rooms / documentation Social profiles - who's next to me Information board/screen	All your office management systems in one tailored, centralised hub. Helping you work more efficiently.		DeskSpace members (variety of SMEs and freelancers)
	KEY METRICS System adoption/usage rates Customer satisfaction (via feedback) Engagement conversions		**CHANNELS** Slack Email Face to face	
EXISTING ALTERNATIVES # Separate systems/platforms # Slack - communication # Envoy - checkins # Robin - booking system # EDMs - awareness # Workshops # Complain face to face		**HIGH-LEVEL CONCEPT** Siri for the office Facebook for work?		**EARLY ADOPTERS** Technologically experienced / digitally literate Familiar with systems already Interested in networking Using facilities regularly - regular meetings etc
COST STRUCTURE # Hosting fees # Service/platform fees			**REVENUE STREAMS** Membership fees Branding partnerships	

Lean Canvas is adapted from The Business Model Canvas (BusinessModelGeneration.com) and is licensed under the Creative Commons Attribution-Share Alike 3.0 Un-ported License.

Figure 1: The first Lean Business Canvas created for Tessellate

Product Development

In keeping with Agile principles, the method of **rapid prototyping** was used to create an interactive prototype of the Tessellate app – this was the minimum viable product (MVP) we developed and pitched. Fixson & Marion (2014, p. 5) describe rapid prototyping as one 'force' in a segmented new product development landscape that also encompasses digital design and a sharing culture. In this landscape, the value of rapid prototyping is that it 'permit[s] almost everyone to engage in the product development process as a designer' (Fixson & Marion 2014, p. 7).

Rapid prototyping – which we achieved through Sketch and Proto.io – proved doubly valuable throughout the project, as our team lacked a trained designer and developer. We were able to mock up the Tessellate UI and create an interactive prototype within two weeks. Rapid prototyping proved to be the perfect complement to Agile and Lean Startup, as it provided a practical means of iterating and testing a product. For instance, Figure 2 shows the initial, intermediate and final iterative stages of designing the Feed. This example demonstrates the use of Agile and rapid prototyping methods to create a MVP which we were able to validate using the Lean Startup method.
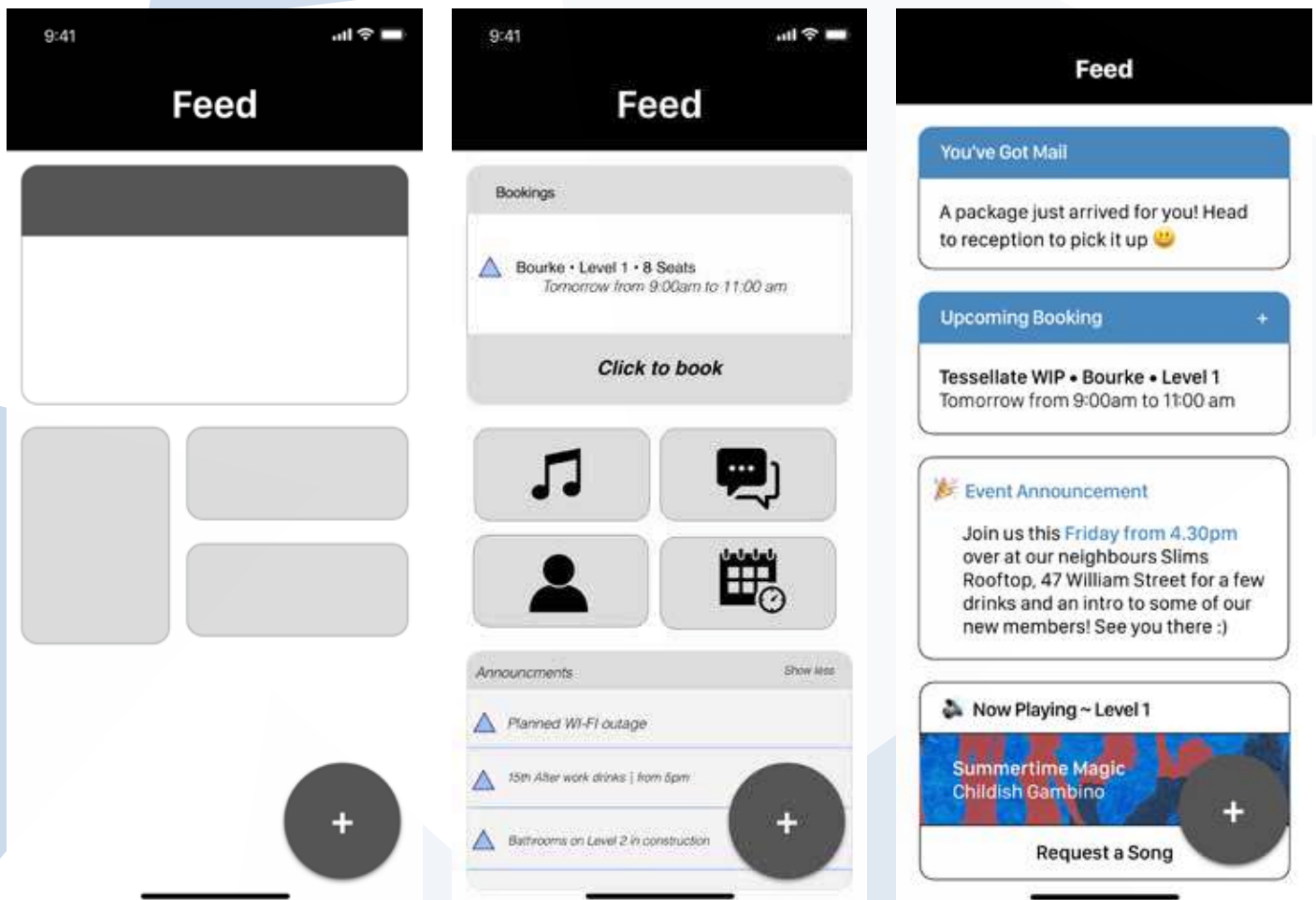

Figure 2, left to right: 'Feed' mockups in chronological order

Pitch Feedback

The feedback on our pitch helped identify three key aspects of the pitch that would benefit from further consideration.

Value Proposition

Following our pitch, the judging panel asked whether we were aware of competitors like Workplace by Facebook. In response, I noted that Workplace offers a one size fits all corporate communication solution, and therefore fails to meet the varied needs of coworking spaces, wherein members already access a diverse range of organisation and management software. This question, however, suggests that our pitch could have better articulated Tessellate's value proposition, and that the value proposition itself could be refined and/or reworked. A fundamental difference between Tessellate and its competitors is that it integrates with existing services to offer a streamlined user experience, rather than aiming to entirely replace those services. A revised concept and pitch might emphasise these API integrations

Business Strategy

An area of our pitch that generated considerable interest among the judging panel was the inclusion of a custom enterprise option, where coworking spaces and organisations could commission a version of Tessellate built to their exact specifications and to meet the unique needs of their members/employees. This was not a major focus of the pitch, and the level of interest it created suggests the Tessellate business strategy might be improved by skewing the strategy towards enterprise clients, rather than a cut-and-dried subscription service.

Scalability and Growth Strategy

The panel also questioned how Tessellate would be presented to prospective clients, and whether the strategy accounted for a business development manager. This was something we accounted for in the budget that was pitched, however the question highlighted an issue that was not considered in the lead-up to the pitch – scalability. This could be addressed by developing a specific strategy for growth, which might stem from creating a more detailed Lean canvas.

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