SECTION 2: CONFIGURATION AND COMMUNICATION OF THE CAREERS AND EMPLOYABILITY OFFER TO STUDENTS

4. Career Mapping: bringing data and framework to service

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Introduction

At the University of Melbourne, the Careers Registration methodology has been named Career Mapping – an umbrella term which catches both the process of student data-gathering at enrolment, and the attendant conceptual framework of Discover, Focus, Apply and Sorted (Cobb et al., 2019). It was introduced in 2020 in pilot form using an opt-in survey to test questions and shape plans for the arrival of a larger data set in 2021, followed by a complete data set in 2022.

Although collaborations across the University have enabled survey implementation and data provision, the management of the Careers Registration methodology, since its inception, has sat with the relatively small Careers and Employability (C&E) team. The first few years have been spent making sense of the data for optimal service design, engaging and supporting individual student career development and leveraging insights to expand service reach through better collaborations and partnerships.

A key driver for the introduction of Career Mapping at the University came from major customer experience (Cx) work in 2019, in which students told us that career was individual and that they needed personal, bespoke advice. Many try to independently navigate through their career development journey with little support which often increased anxiety and stress. Students said career was a concept dependent on self-awareness and action, and decisions that start to define their future were

sometimes postponed until late in their degree, which was often too late. They also said that in order to connect and engage with services, the offering needed to be relevant and specific.

Emerging alongside was the rise of the Career Registration methodology in Australia, which seemed a transformative powerhouse on which to base decisions for a refreshed, contemporary service design coming off the insights from Cx projects. It offered an evidence-based approach coupled with a journey-framework that echoed the well-established career development Watts DOTS model (Law & Watts, 2003) but curated for a higher education context. It was a ready-made package to be applied and adapted to the University of Melbourne careers service and beyond.

Implementing Career Mapping

In 2020, the University settled on data-gathering survey (career census) comprising two questions that prompt students to self-identify career-readiness and report on their experiences in the past 12 months.

As shown in Figure 4.1, the career-readiness question (CR1) gives students 12 statements from which they must choose one, with their responses clustered into Career Mapping phases of Discover, Focus, Apply, Sorted. The experiences question (CR2) asks students to identify the experiences they have undertaken in the past 12 months, providing 18 options from which they can choose multiple, spanning no experience, paid or unpaid experiences and / or sought careers advice. The survey is embedded in the enrolment process, open from the period November to March, and has typically returned 47,000-plus responses each year.
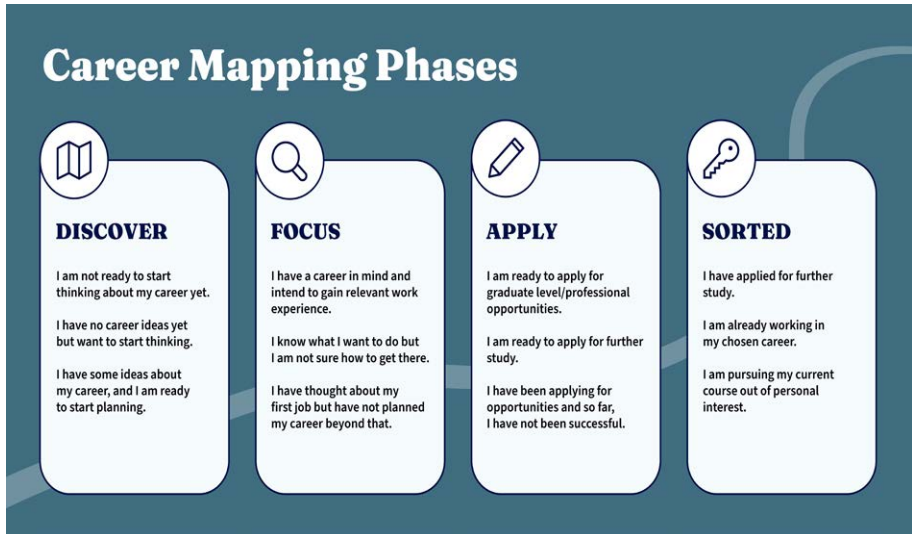
Figure 4.1: the University of Melbourne's career-readiness survey statements

C&E made an early intentional decision to use the data and insights to improve service design. In 2020, C&E reported approximately 28% of enrolled students had engaged with the service over the past 12 months, either with in-person services or online tools and resources. Importantly, the 2020 pilot to test the Career Mapping approach demonstrated much higher engagement from students in the partner faculty, than the other 10 cohorts. This confirmed the decision to use the framework to design better, more targeted services aimed at helping individuals create agency early so they can develop their career journey with meaning and purpose.

This practice-based case study aims to present a picture of the impact of Career Mapping as it is interwoven through the C&E service offering.
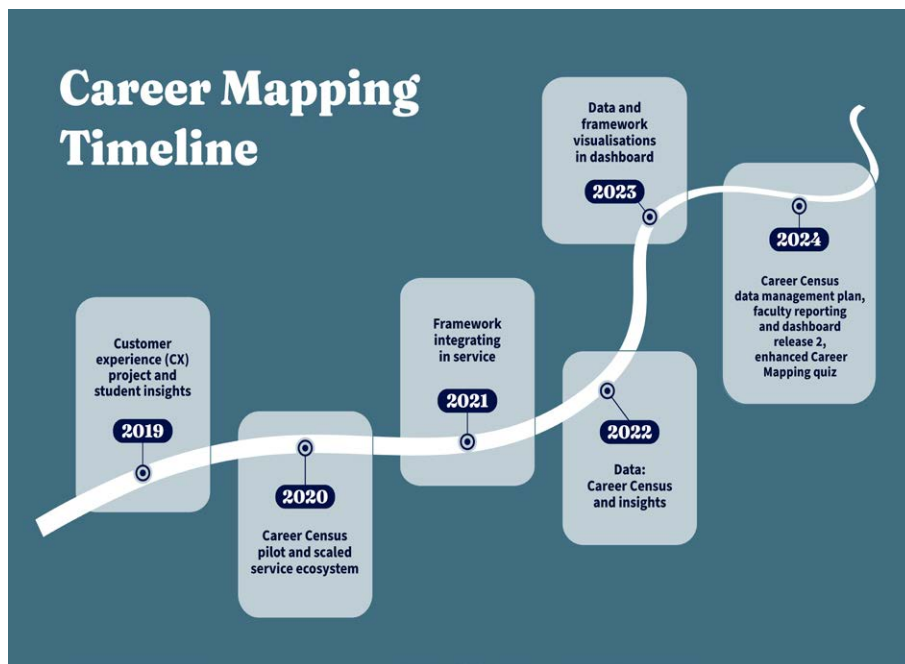
Towards An Evidence-Informed Service Design

Figure 4.2: The University of Melbourne's timeline of Career Mapping implementation

From year-one, the University's career-readiness (CR1) results lined up with the remarkably consistent distribution of headline responses from multiple institutions in the UK (Gilworth, 2023) that is, the highest proportion of students identified in early phases of career readiness – Discover (2024 – 40%) and Focus (2024 – 32%). Perhaps because of the distinctive Melbourne curriculum, and the inclusion of undergraduate and graduate enrolled students in the career census, a still significant portion of the University's student population consistently identifies in the Sorted bucket (2024 – 20%), while Apply remains the smallest segment (2024 – 9%).

Yet the University's student career-readiness profile defined by the results of the census was inversely proportional to the traditional C&E's service design, in which the majority of services, tools and resources were

targeted to students in the smaller Apply category. While this made sense to some degree – these students are keenly attuned to their employability at this point, and in need of timely guidance – the Cx insights did elevate the importance of helping students with their career development early in their studies, and the need for more supported navigation through careers services and related activities.

C&E focused on identifying where to expand and scale up services across the career-readiness phases, making the framework useful and visible to students and other partners, and using the data to directly communicate to students with targeted referrals tailored to their career-readiness phase.

Key components of Career Mapping included:

1. Embedding the framework throughout online and face-to-face offerings, including:

   - Development of new online learning modules for each of the Career Mapping phases such as *What should I do with my life?* and *Developing your career plan* for Discover students, and for students in Sorted phase *How to meet professionals in your field*.
   - Design of explainer resources for use in 1-1 appointments.
   - Construction of new / refreshed in-person content tailored to phases, such as *What can I do with my degree* (D), *How can I get an internship* (F), *Optimising your job search* (A) and *Using curiosity for career design* (S).
   - Integration of polling in group sessions and tailored activities and examples.
   - Layering over existing programs to measure and make visible to students their progress / movement through the phases.

2. Implementation of an annual communications and interventions plan to directly target students according to their phase and refer them to relevant services and resources, based on refreshed service design. In 2024, there has been a shift in service focus to more intentionally target students in the Discover phase,

encouraging early career planning, and supporting smoother transitions for final-year students.

3. Launch of a design system to provide agreed language and a visual representation of Discover, Focus, Apply and Sorted that enabled students to understand and use the framework to guide actions and decisions, which was integrated through physical and online C&E spaces (see table 4.1 below).

4. Production of a basic Career Mapping Quiz which duplicated the career census survey in a format to enable students to self-identify their carer career-readiness in real-time, see the phase they belong to, and identify programs, activities and resources relevant to their phase.

Phase	Tagline	Descriptor
Discover	Open to possibilities	Discover who you are and careers to fit you
Focus	Draw your map	Focus on your next steps and sign up to opportunities
Apply	Make your move	Apply for opportunities and connect with professionals
Sorted	Your story continues	Transition to work or further study and continue to build connections

Table 4.1: Career Mapping design system includes visual assets and common descriptors

With Career Mapping, C&E had the opportunity to progress from a one-size-fits-all approach, to a 'personalised at scale' model that enabled design and communication of services to the whole-of-University cohort but filtered relevant to the individual student's starting point (Gilworth, 2021).

Methodology

Collecting student information in the career-census provided C&E with an invaluable data set but did not provide the student with any return information, either about their career readiness phase or practical guidance or inspiration to drive career curiosity or engagement with service. As enabling student agency was a key objective, C&E initiated a proactive approach to directly communicate to students about their career-readiness and provide recommended careers interventions tailored to their starting point.
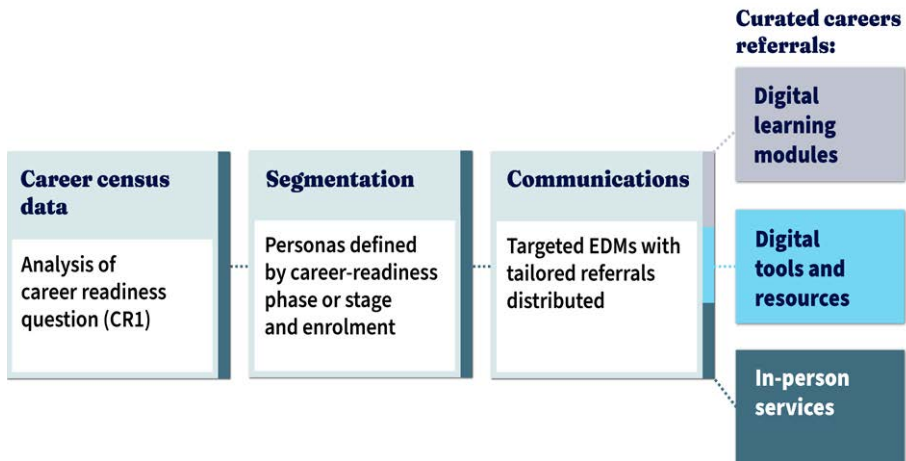

Figure 4.3: Career Mapping service design – communications and interventions plan

The annual communications and interventions plan, which consists of three campaigns per year, comprises electronic direct mail (EDM) sent to all enrolled students, segmented into personas based on either their career readiness phase (Discover, Focus, Apply, Sorted) or the more granular career readiness (articulated as the 12 statements in the CR1 survey question), combined with enrolment and demographic data. Campaign timing is planned around key events and in line with wider University communications, acknowledging that the demand for student engagement with email messages is high during certain times of the academic year. Tailored communications are designed to engage students

with the career mapping framework and direct them to a relevant call to action. Communications are developed in line with the University brand guidelines in terms of style, visual elements and tone of voice.

Persona: Referral:

3 Discover, final-year undergraduate → **1:1 appointment:** Discover your career plan

5 Focus: I have a career in mind and intend to gain relevant experience → **Online learning module:** How to get an internship

7 Apply: I am ready to apply for graduate level / professional opportunities → **Webinar:** Optimising your job search

Figure 4.4: Career Mapping design: examples of persona segmentations and referrals

Since the implementation of Career Mapping, C&E has distributed:

- 2022: 21 tailored emails with curated referrals across 9-10 personas
- 2023: 27 tailored emails with curated referrals across 8-10 personas
- 2024: 23 tailored emails with curated referrals across 8-12 personas

Engagement targets for EDMs were set at an average 50% open rate and a click rate of 5% for each campaign, at benchmark levels for non-essential emails. Tracking engagement through to conversion has focused on in-person events where the engagement sequence is straightforward, and in some cases through to interactions with online tools within 24 hours to one week after EDM distribution.

Discussion

One of the biggest challenges facing the C&E team was building a data management plan, including emerging considerations about ethical and best practices for data gathering and use, access, sharing and security. There was a need to manoeuvre and grow team capability to activate the potential of such a large data set, a challenge that continues today. University team partners have been crucial in providing much-needed guidance and expertise on best practice data management, nevertheless, there remains a responsibility within the team to recruit, develop and support people to manage the data responsibility and analyse and provide insights in a way that does justice to the students who privilege C&E with such rich information base.

Career Mapping has been a key driver for a refreshed service model that flexes and adapts to meet the individual where they are, while offering a foundational suite of services to address challenges of scale. It provides an evidence base for annual planning decisions on priority cohorts, optimal engagement strategies and service improvements. It's a bold approach because of its moveability, but the data insights keep the student and their career-readiness at the centre of service-level decisions about strategy and operations. For example, in semester 2, 2024, the team has launched a new program aimed at encouraging early-year undergraduate Discover students to engage with their career development through small group sessions, and Discover final-year undergraduates to accelerate their career planning through extended 1-1 appointments. Implementation has involved changes across the machinery of service such as system reconfiguration, staff PD, dynamic rostering and new resource development.

Timing is also a tricky consideration. Because the career census mechanism does not provide the respondent with real-time visibility of their career readiness phase, the communications of a student's Career Mapping results are delayed. Students complete the survey at the point of enrolment, which can mean some months may have passed since they answered their career-readiness question and when they receive their first communications. It is logical that within this space, an individual's career-readiness may have moved, and certainly by the time they receive

the third communications, it is most likely many would have made some decisions or taken actions that put them at a different point of the career readiness journey.

To mitigate against potential confusion that could come from students no longer identifying with the career readiness group they indicated earlier in the year, and to keep it relevant and meaningful, C&E propagates the Career Mapping Quiz throughout service points. It shows the student what their career-readiness phase is and presents a quick description of what this means and provides a number of tailored referrals. The quiz is embedded into the EDM templates to give students the option of 'trying again' if the content of the EDM was not speaking directly to their current career-readiness.

Towards 2025

In 2024, C&E has made a significant investment in the development of an improved version of the Career Mapping Quiz, with a new custom diagnostic tool to enable students to self-service using the Career Mapping framework. Due for release at the end of the year, it will be a front door to service and provide an engaging and meaningful navigation experience for students based on their current phase of career-readiness.

The team has also recently grown to include capacity and expertise to expand the reach and impact of the career census data. This will enable implementation of an enhanced data management plan including release 2 of a Career Mapping dashboard, faculty reporting, case studies and insights to support cohorts in-curriculum.

Career Mapping Service Design Outcomes

Since 2022, the C&E communications and interventions plan has implemented the distribution of more than 70 distinct emails resulting in average open and click rates shown below:

Year	Campaign	Open rate	Click rate
2022	EDM campaign #1	66.84%	8.04%
	EDM campaign #2	68.27%	6.3%
	EDM campaign #3	70.03%	8.03%
2023	EDM campaign #1	69.81%	5.91%
	EDM campaign #2	67.47%	3.87%
	EDM campaign #3	66.43%	7.76%
2024	EDM campaign #1	75.39%	5.72%
	EDM campaign #2* early-years	60%	4%
	EDM campaign #2* final-years	66%	7%

Table 4.2: Results from Career mapping comms and interventions campaigns
*incomplete data – ongoing campaign

The interventions engagement metrics offer a mixed picture. While conversion to bookings for in-person services are straightforward, referrals to online tools and resources and other programs don't provide an A to B throughline as they can often be cross-promoted and are not time bound. However, C&E does attempt to build an evidence-based understanding of how successful each campaign has been in helping drive student engagement to services and uses results and indicators to inform dynamic service design and scheduling. Some examples include:

- 2024 Discover Final Year EDM with a call to action (CTA) to extended careers appointment: This EDM is achieving an open rate of around 70% and a click rate of 6% each time it is sent. Over the first few weeks, this campaign has resulted in 38 bookings for extended final year appointments. The offering will be evaluated at end of semester to inform 2025 service design.

- 2022 Discover EDM with a CTA to *What can I do with my degree?* seminar. This EDM achieved an open rate of 70% and a click rate of 3.5%, below the 5% target. This could be explained by the Discover cohort being more difficult to engage, especially those in stage one who said they are not yet ready to start career planning. However, importantly, the students that attended the webinar and provided feedback (25%), 100% reported finding the webinar relevant to their current career mapping phase and current career needs. This session continues to be offered based on positive student feedback.
- 2023 Apply EDM with a CTA to *Get back on track* workshop sent to a small group of students who had indicated they were applying for opportunities but had not had success. The EDM achieved an open rate of 73% and click rate of 6.7%. The workshop received an NPS score of 100 and 100% of those that attended and provided feedback reported the content to be relevant to their phase and needs. This highlights the importance of this type of intervention and messaging for those students who may be finding the job seeking process challenging and continues to be offered with iterative improvements.
- 2022 Apply EDM with a CTA to the Smart Resume platform achieved open rate of 68.46% and an open rate of 6.94%. Over the subsequent week, there were 165 new sign ups to the AI-review tool, compared to a weekly average of 93 sign-ups. This continues to be a regular referral in direct-email campaigns.

It is worth noting that a small C&E quarterly survey (discontinued in Q4 2023) showed a consistent bump in NPS when students reported that they knew their Career Mapping phase.

Conclusion

The Career Mapping annual plan is a complex umbrella initiative bringing together multiple operational strands including data management and analysis, service design, communications and service delivery. It is clear that the personalised, targeted nature of communications and

interventions is engaging students, and those who are attending and participating are reporting high levels of satisfaction with service, and content relevancy.

The data is enabling a contemporary approach to service design that is flexible and responsive and is meeting students where they are in the career journey. The deeper picture of student progression from communications to engagement continues to be a focus for evaluation, with the next phase pointed at tracking student movement through multiple service points. Full analysis of students' career readiness from enrolment, through study course, to outcome is a future focus for C&E as team capacity grows. It is worth noting that in 2023, C&E reported significant growth with 55% of the overall student cohort having had an interaction with C&E services or platforms, of which the work of Career Mapping makes a significant contribution.

There are other streams of activity, not discussed in detail here, but which are squarely pointed towards advancing the Career Mapping methodology, including release of the enhanced Career Mapping Quiz at the end of 2024. Work progresses to visualise the data in a dashboard as a mechanism to take Career Mapping beyond C&E and strengthen partnerships with academic divisions with the goal of cracking open opportunities for careers and employability learning in the curriculum. Activating the wellspring of insights from the CR2 question on experiences remains an ongoing area of focus. This is the third year the University has drawn a full data set from enrolled students from the career census, but the challenge of maximising the transformation that big data (Cobb, 2019) can provide for enhancing student careers and employability feels like it is just beginning.

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