MAXIMISING
STUDENT PLACEMENTS
THROUGH BOTTOM-UP INFORMATION SYSTEMS

SPOT
Student Placement Online Tool

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About SPOT

SPOT, the Student Placement Online Tool, is a web based solution for managing and coordinating student clinical placements.

SPOT combines intuitive dashboards for managers, students and clinical supervisors with powerful information gathering, reporting and capacity planning capabilities for Clinical Placement Coordinators and Directors.

SPOT connects Education Providers with Placement Providers, and with Students, as a central repository for all stakeholders to store and access important placement information.

SPOT is the best way to answer:

"Where, when, who and how many students do you have on campus?"
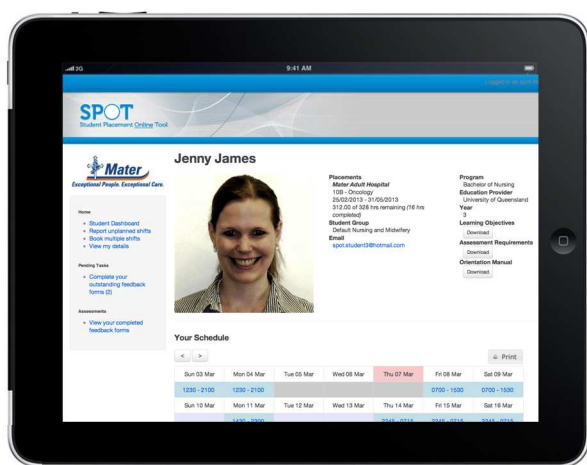
PLANNING FOR OUR FUTURE CLINICAL WORKFORCE

"…Australia is likely to experience limitations in the delivery of high quality health services as a consequence of: workforce shortages…"

HWA (Health Workforce 2025) 2012.

HWA examined Australia's long-term workforce projections for doctors, nurses and midwives. The findings in their study suggest a shortage of up to 109,000 nursing positions by 2025 unless measures are implemented to increase the supply of these skilled workers.

A key objective of HWA's Work Plan in response to this predicted shortage is building placement capacity for the clinical training of health professional students.

Concurrent to HWA compiling their report, Mater Health Services undertook a nine month review of the business processes and tools used to manage and coordinate student clinical placements across their multi-hospital, multi-campus sites in Brisbane, QLD. This review found:

- Management and administration of student clinical placements required a high level of manual processing and administration.
- Only limited technology, such as a variety of individually created spreadsheets and database systems, were used to support and administer student clinical placements.
- A data retrieval processes that was labour intensive and produced poor quality data was used when information was needed for business planning and funding submissions.

The key recommendation of this review was to implement a tool that would reduce the need for manual processing and accurately record all relevant student placement information for easy retrieval when required.

When MHS went to market they found that there were no available solutions that significantly reduced the manual processing necessary by the key healthcare service staff. The decision was made to internally develop a solution that takes advantage of the "bottom-up information system" and allows capacity for clinical placements to be maximised through metrics, planning and analysis.

SPOT is the resulting solution.

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BOTTOM-UP INFORMATION SYSTEMS

Providing student clinical placements is a complex and multifaceted process. It can involve multiple stakeholders, including educational institution faculty and administrators, clinical supervisors and healthcare service managers, clinical placement coordinators, professional and regulatory bodies, government entities and, of course, students.

SPOT's unique advantage is being a bottom-up information system, where each stakeholder involved in the process adds their own component of information, which builds up to show the complete picture. This is different to a top-down approach in which a central clinical placement coordinator or office seeks out and enters information into a system which then filters out to the various stakeholders.
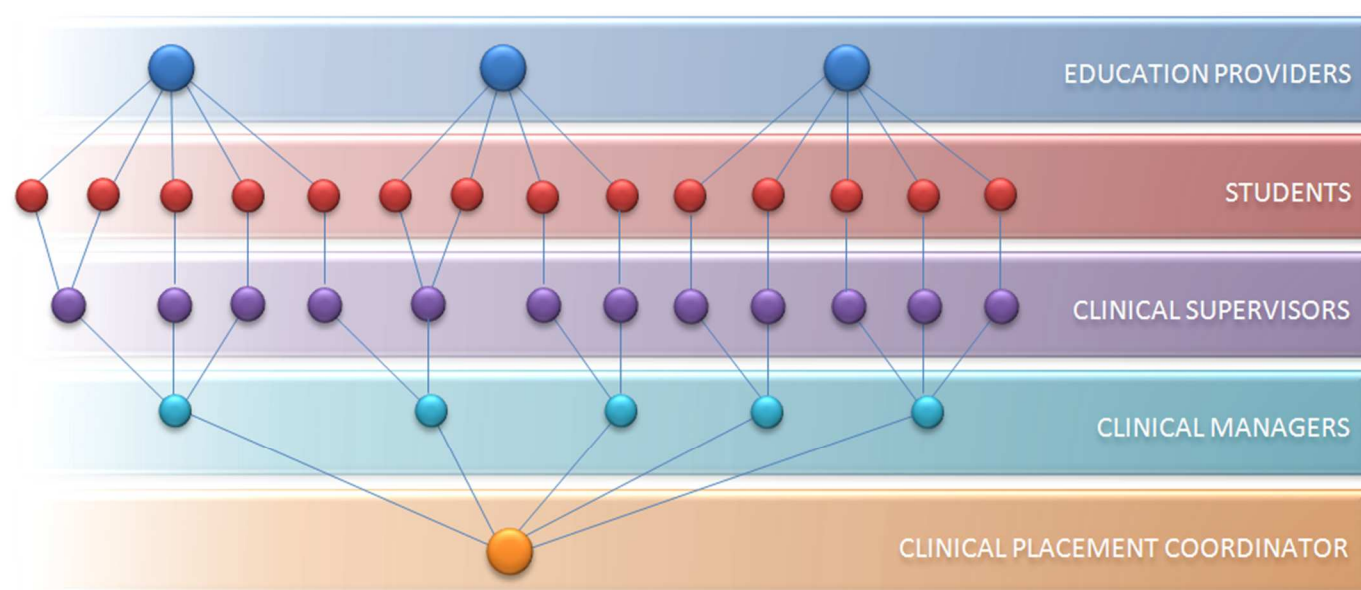
A bottom-up structure allows each stakeholder to accurately record their 'piece of the puzzle', while simultaneously accessing pertinent information entered by others. This sharing of information also acts as a verification of accuracy, as multiple sets of eyes review each entry.

The below is a graphical representation of one set of different groups of stakeholders and how they're interconnected. As each group contributes and shares their information it flows on to the Clinical Placement Coordinator, who can then access, collate and view an overall picture.

Bottom-up information systems have exploded in parallel with the rise of the internet.

Facebook is the most widely recognised bottom-up information system in the world, with each user adding their information to a massive central repository, accessible by many.

Empowering individual users to engage in the data flow, rather than simply being counted in the data, not only makes it easier to gather the data, it can reveal threats and opportunities which would never have been visible using a top-down approach

EDUCATION PROVIDERS

STUDENTS

CLINICAL SUPERVISORS

CLINICAL MANAGERS

CLINICAL PLACEMENT COORDINATOR

DETAILS VIA DASHBOARDS

Bottom-up information systems rely on many individual users all interacting and sharing, contributing their own sets of data. Therefore the most important design element in these systems is the user interface, or dashboard, for each user.

A well designed dashboard will display the most relevant and important details to the user in an intuitive and easily accessible way. They will allow simple decisions to be made without switching screens and if more information is needed, guide the user to where that information is.

Connecting 100s of Users

SPOT is now successfully designed, delivered and implemented across all Mater Health Services South Brisbane Hospitals.

With one simple click we know that in 2012, SPOT connected:

- 820 students and

- 74 education provider staff from

- 12 Tertiary Education providers with

- 2168 student supervisors and

- 141 clinical managers and

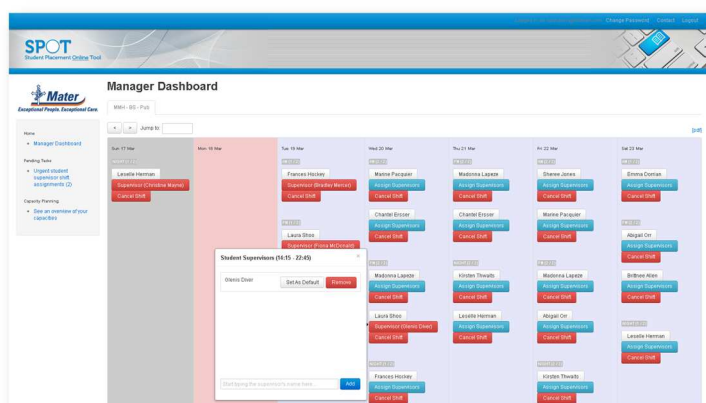- 5 Directors and

- 1 Clinical Placement Coordinator

Each of these users spent an average of 3 minutes and 42 seconds each time they visited SPOT. They logged in, connected with the information they needed, entered any information they needed to contribute and logged out.

SPOT keeps it simple.

Each user type should also have a dashboard specifically designed for their needs. This means the look, feel and functionality of two dashboards may be completely different, even though they might be presenting similar information.

For example, the Manager Dashboard and Facilitator Dashboard look and function differently in SPOT, even though both display students and their booked shifts. This is because clinical managers and team leaders interact with students very differently to facilitators, lecturers and tutors.

SPOT: designed **by** placement providers **for** placement providers.
www.spotapp.com.au
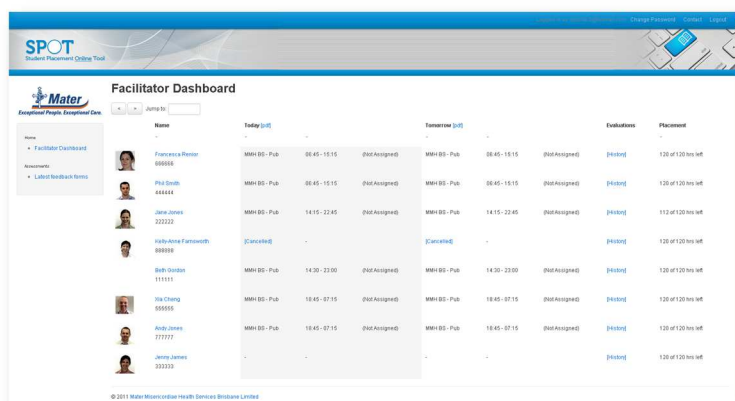
THE POWER OF CONNECTED AND INSTANT INFORMATION

Often in large and complex systems like tertiary education institutions and health care facilities individual people can become faceless and individual pieces of information can go unnoticed. This is one of the drawbacks in using a traditional top-down, command and control style of information system.

Implementing a bottom-up system like SPOT allows each individual, no matter their role, to become more than just a number on a spreadsheet. And because the individual pieces of information are accessed by users as part of their daily operations, any missing or inaccurate data quickly gets identified and corrected.

All interactions happen in real time over the internet. So when a student's shift is booked, the:

- staff in the area can access it along with the student's details and photograph,
- student's facilitator can access it along with all the other shifts the student has completed and booked,
- supervisor assigned to the student for that shift can access it and any important learning documents they need,
- placement staff can access it as part of the overall data set of clinical placements.

Instant, connected information allows immediate, informed decisions, creates engaged, empowered users and provides more complete and accurate information.

"SPOT looks fantastic. What an efficient way of keeping track of the hours students have completed and all other placement details. No need now to spend time chasing up this information. This will be the way of the future. Congratulations on a great innovation."

Alison Gidley
Field Education Admin Assistant
The University of Queensland

"It's fantastic that we can see which students are scheduled to be here for the whole week, and plan who will be working with them before they get here. And just knowing the student's name is great!"

Deb Tanham
Nurse Unit Manager
Mater Adults Hospital

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The BIG question…

How many more students can you place?

There's only two ways to grow clinical placement numbers, increase your capacity or increase the efficiency of your current placement models. But how?

After only twelve months of use and data collection, SPOT was able to show that current placement models led to a usage of fewer than 20% of total capacity at Mater Health Services.

At a click of a button it also showed which individual areas were "bottlenecks" and where and when opportunities to place more students existed.

Using this information in combination with Placement Simulation scenarios, MHS has been able to renegotiate a substantial increase in student numbers with their education provider partners.

SPOT provides the confidence to grow clinical placements.

MAXIMISING CURRENT CAPACITY

Having accurate data on where, when, who and how many students you have is only the first step to fulfilling the objective of increasing capacity.

Once you have the information, a bottom-up system can assist you to understand it and find efficiencies by bringing it all together. SPOT does this in two ways, visualisation and simulation.

If a picture is worth 1000 words, a picture in SPOT it is worth 100s of 1000s of numbers! The integrated Tableau® technology in SPOT allows any captured data to be presented in an easy to read, interactive visualisation. For example, being able to immediately see a graphical representation of individual area usage compared to capacity can make it obvious where there is under and over utilisation. This translates to more efficient placement decisions
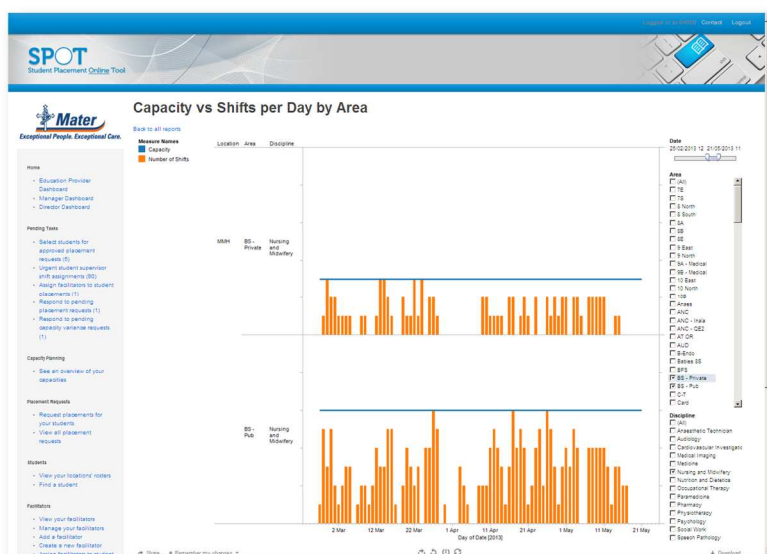
Going further than this is SPOT's Placement Simulation module. Clinical Placement Coordinators and Directors of Clinical Education can enter scenarios based around numbers and disciplines of students, their required hours and their availability to attend shifts. The advanced analytical engine will then run the simulation to determine an optimal allocation of students to areas.

This simulation can then be used to place the students. It can also be used to drive decisions on how many placement positions to open to education partners and even inform reviews of current placement models, be they distributed or block.

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PREDICTING INCREASED CAPACITY

After maximising your currently set capacity, the next step on the road to increasing your clinical placement numbers is to increase the set capacity.

Setting a capacity of students is often a delicate subject and can be based on a number of variables such as the:

- Number of health professional staff available to supervise students,
- Level of experience of health professional staff,
- Acuity of the service offered in the different areas of the health care facility,
- Learning opportunities present in individual areas,

Using a set of these variables, an algorithm can be developed to find what the "best practice" set of capacities is across similar areas and units.

SPOT can link with your healthcare institution's rostering system to draw staff and experience levels, while acuity ratings are determined by clinicians. It then reviews your historical capacity levels against these variables to set a "best practice" benchmark. You can then predict what each area's capacities should be set at based on these variables with a simple click.

A computer will never replace the knowledge and intuition of clinicians and health service administrators. But what SPOT does is provides a set of guidelines for decision makers to discuss and draw confidence from.

SPOT - Maximising Clinical Placements

- Connect Users through Bottom-up Design
- Capture data through intuitive Dashboards
- Manage Placement Operations
- Maximise current capacity
- Predict increased future capacity

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