Aims

- Introduce Alphastudy.com
- Features and capabilities in Alphastudy
- Demonstrate Alphastudy uses in healthcare
- Show real hospital case examples
Quick background about me...

- Healthcare technology & RnD +5 yrs
- Papers in Emergency Medicine Australasia
- Presentations in San Francisco US, Toronto Canada, Auckland New Zealand, Australia
- Don Walker 2008 Award – Australian Health Informatics Award outstanding achievement
- Young Australian Innovator Finalist 2008
- Profile [http://www.linkedin.com/in/daviddinh](http://www.linkedin.com/in/daviddinh)
What is Alphastudy?

- Essentially bringing together “disparate tools, systems, disparate silos of knowledge together”
- Closes the gaps and opens accessibility to the right knowledge within the organisation
What Alphastudy aims to…

- Provide an easy to use and effective platform to develop quality knowledge content
- Enable knowledge communities
- Motivate information sharing and content development
- Promote health education, trusted content
- Healthcare is a knowledge rich environment, how to best capture this?
The story of alphastudy

- Content **Information Laundry** vs **Knowledge Builders**
- Blogs, Wikis, Social Bookmarking
- San Francisco ICEM April 2008
- First prototype November 2008
- Launch of research projects Dec 2008 – March 2009
Core features

- Unified platform
- Online productivity tools
- Platform independent, devices, mobile
- Crowd wisdom
- Participants develop quality trusted content
Allows users to…

- Question existing processes, conduct new research, share new knowledge:
  - How will we know if a new process will succeed?
  - How can we get more reliable information?
  - Identify knowledge gaps and address them fast
  - How can we reduce medical errors? How do we measure and benchmark processes?
Opens a new knowledge paradigm

- The world is getting smarter and more interconnected. More opportunity to learn, analyse data and make more informed decisions. Smarter use of data, optimising for future events.
Plexagogy

- Plexagogy. Leveraging from the crowd wisdom
- Rather than searching for answers on the internet, get subjective answers from opinions and experiences of others.
- Decentralised workspaces, sharing skills and knowledge for greater participation
- Online knowledge community interaction
What does this all lead to?

- Collaborative network knowledge sharing
- The team get involved to participate with their colleague’s research studies and projects because they know it will make a difference to their daily hospital work
- Healthcare users make more informed decisions
How is Alphastudy currently being used?

- Trauma Audit May – Apr 09 “Code crimson audit”
- 2009 Clinical Handover at the Bedside (WHO study patient safety)
- 2009 Australasia Survey of Ultrasound Capabilities
- RPAH Research project registry
- Sydney Emergency Online Research Centre
- RPAH ED clinical research studies
Trauma Audit 2009, RPAH

- Staff teamed up and worked together, results... identified knowledge gaps in specific clinical areas
- Quick study allowed clinicians improve education sessions, simulations and improve processes
- An example of how Alphastudy was used to quickly uncover a significant knowledge gap in one of the mandatory protocols
- Trauma Audit 2009
Trauma audit April-May 09

- Fragmented knowledge in the team leading to varied treatment practices and patient outcomes
- Address critical knowledge gap and differences
- Method: before/after qualitative
- Follow up audit to assess compliance
Why did clinicians use Alphastudy?

- Integrated study setup by clinicians
- Gained stakeholder and internal support since the aims improved everyone’s knowledge
- Enabled fast knowledge transfer
- Demonstrated to management solid improvements in patient treatment and knowledge outcomes
- Provided a benchmark to compare future studies
- Opened participation, disseminate findings to users
Compliance results

- **Knowledge gaps identified (before):**
  - Consultant notification SBP<90 (67%)
  - Code crimson activation (75%)
  - Transfer to OT in 20 minutes (73%)

- **Knowledge gaps identified (after):**
  - Consultant notification SBP<90 (90%)
  - Code crimson activation (93%)
  - Transfer to OT in 20 minutes (90%)
Trauma Audit Outcomes

- Improved decision making amongst the team
- Clinicians identified improvements in processes
- Knowledge transferred to new staff fast
- Improved trauma protocol compliance
Clinical Handover Study 2009

- WHO's High 5 of Patient Safety
- Australian Quality & Safety in Health Care Commission
- National Handover Initiative

- Dr Tim Green (RPAH ED Director)
- Staff Specialists
- Nursing Managers
2009 Clinical Handover Study

- Collect the following outcomes:
  - Identify unwell patients and previously unidentified issues
  - Improve patient satisfaction
  - Improve patient safety
  - Introduce patient to senior staff in the department
  - Ensure observations documented and variations identified
  - Identify missed clinical signs and verify
Reason for the study

- Improve patient safety
- Speedy review of the patient post handover
- Improve patient flow
- Increase patient satisfaction
- Earlier management decisions
- Increased staff specialists & senior registrar involvement

Vs

- Outdated information
- Variable level of detail
- Inconsistent use of the whiteboard
- Little involvement of junior staff
- Inconsistent post handover review
Clinical Handover Study…

- Online knowledge site setup by clinicians on Alphastudy
- Study disseminated to all clinical members
- Alphastudy was available on the intranet
- Conducted post implementation observations
Clinical Handover Outcomes

- Patient safety is a sensitive issue…
- Alphastudy’s researching, validation, discussion capability helped improved clinical handover processes now entrenched in the Emergency room culture and now done regularly
- More comfortable environment to ask questions, evaluate and seek better outcomes. Change in healthcare is less risky when you have more information and internal studies/reviews to back your claims.
Further use at Royal Prince Alfred Hospital

- The Royal Prince Alfred Hospital
  - Approx 60,000 presentations annually through the ED.
  - RPA operates as a Level 6 (teaching hospital) Emergency Department and is a designated trauma centre.
  - Accredited for advanced training in Emergency Medicine by the Australasian College for Emergency Medicine
Some uses at RPAH

- Conduct research studies
- Teaching case of day
- Journal Article Reviews
- Orientation training
- Clinical feedback
- Learning centre
- Interesting cases
- Expert “knowledge crowds”
Trauma training


Introduction to Trauma Services
Sydney Trauma Team - discuss, prep, questions

We have a new updated site! Welcome to the Trauma resource website. On this site you will find the trauma team registration survey and medical student rotation feedback forms.

- TRAUMA TEAM MEMBER REGISTRATION & ORIENTATION SURVEY
- THIRD YEAR MEDICAL STUDENT ROTATION FEEDBACK AND ASSESSMENT
Emergency Medicine Research Centre

Evidence based practice reviews

- Information is liberated from the experts, learn from other participants.
Greater leverage from peers with the similar knowledge pursuits.
Clinical training, knowledge management

- Increased user contribution leads to a growth of “collective intelligence” and re-usable knowledge
Short studies and questionnaires

- Quickly setup and conduct research studies
- Analyse and collect data fast
- Gain a deeper understanding of issues and needs

Trauma rotation feedback form

You have attempted this survey 0 out of unlimited times. You have unlimited attempts left to fill out this survey. Alphastudy survey platform is compliant with HIPAA Privacy and Security Acts and is bound by the National Privacy Principles in the Privacy Act 1988 (Cth).

To be completed at the end of your trauma week rotation. Please provide us with your feedback so that we can improve the rotation for future students.

Overall - how would you rate your trauma rotation week?
- Excellent
- Very good
- Good
- Fair
- Poor

Were the learning objectives for trauma made clear during the week?
- Yes
- No

How many trauma resuscitations did you observe during your week?
- 1
- 2
- 3
- 4
- 5
- More

How can we improve the educational experience of the trauma rotation (general comments)?

Indicate which of the following you were able to attend or observe during the trauma week
- Trauma patient assessment and management in the Emergency Department
- Tertiary survey round
- Trauma tutorials (initial management and practical skills)

Understanding your asthma

You have attempted this survey 0 out of unlimited times. You have unlimited attempts left to fill out this survey. Alphastudy survey platform is compliant with HIPAA Privacy and Security Acts and is bound by the National Privacy Principles in the Privacy Act 1988 (Cth).

This video can be used in a patient feedback survey to assess the effectiveness of an Asthma Education program for patients. The user can first watch the video, and follow up questions are provided as part of the feedback study.
Future?

- Acting as a knowledge broker
- Health research portals for professionals
- Asking the crowd for expert advice
- Enhancing decision support systems with local knowledge
- Farm out small packets of work to different research groups.
Interested?

- Deploy into healthcare specialties and more research environments
- Implement for more research projects, scientific studies
- Rollout enterprise and corporate packages
- Partnerships for healthcare deployment
- Improve the access and sharing of knowledge
- Continue to provide a platform to foster collaboration and innovation
How to start using Alphastudy …

- Click on Create a new site
- If you are a new user, follow the simple new account registration steps
- Provide a Site Title and some basic site info
- Alphastudy will build the rest for you…
- Send me an email: david.dinh@