An architectural practice can only grow to Broadway Malyan’s size — in 2003, the fourth largest employer of architects and one of the top 10 fee earners in the UK — by providing a wide range of clients with good design and efficient delivery. They recognised several years ago that continuing success would need a more systematic approach to learning and sharing knowledge, and they addressed the issue in an unusually insightful way. Rather than launch a generalised ‘knowledge management’ initiative, they decided to focus their effort on a specific business priority and created a new post with a brief to develop knowledge systems for supporting project delivery.

Supported by intranet developers Cubic Interactive, the new Business Process Facilitator, Associate Adrian Burton, has developed sophisticated, bespoke software which prompts, guides and helps job architects at every significant step in the life of a project from job leader appointment to post-completion evaluation. Through a single interface, the Business Process tool shows in detail what needs to be done, offers guidance, editable document templates and mail-merge facilities, creates an audit trail, and gives access to key project records. It also allows architects to search a ‘Knowledge Forum’ database for lessons learned in previous projects, and to add new knowledge as it arises.

Reflecting the practice’s design-led, non-authoritarian culture, the tool does not dictate. Users can ignore most of the prompts if they wish, but there is every incentive not to: the system automates much of the administrative drudgery of job running, protects job leaders from procedural lapses, and frees up time for creative design.

Business Process is an excellent example of knowledge codification, embodying the practice’s collective expertise in project delivery and making it available to even the most junior architect.

With that success behind them, Broadway Malyan were able to turn their attention to developing knowledge management systems to support the creative side of their work, while continuing to refine the support for process.

Contact with Spreading the Word made them realise that the most valuable knowledge is stored in people’s heads and impossible to write down. This gave them a new objective: to connect people better and encourage them to talk more. As first steps, Adrian Burton and his team replaced an ineffective old skills database with a new Yellow Pages system, and redesigned their Contact Database and Induction Process.

“The Broadway Malyan Business Process is one of the most effective quality systems I have seen”
Brian Isham, Lloyds Register Quality Assurance

Practice Profile
Staff: 430
Offices: 7 UK (10 across Europe)
Projects: Education & research, workplace, residential, regeneration, healthcare & community, retail & leisure, urban design & masterplanning
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Starting points
Development of the Business Process system was well advanced when Broadway Malyan first became involved in Spreading the Word. They also had a variety of other knowledge management tools and processes in place, including:

- ‘first generation’ skills and contacts databases
- project reviews and close-out meetings, informed by post-completion telephone interviews with clients conducted by job leaders
- some specialist groups, such as a CAD user group
- occasional workshops on specific topics such as the disability discrimination act
- a sustainability library, a collection of Best Practice details and external resources such as Technical Indexes available through the intranet.

However, these had developed piecemeal with no overall vision or strategy for knowledge management in mind, and person-to-person knowledge sharing relied largely on informal networks and a cooperative culture. The skills database was little used, the contacts database out of date, and there were no real Communities of Practice or systematic mentoring.

This is now changing fast.

Business Process
The Business Process job management tool is becoming Broadway Malyan’s core tool for sharing codified knowledge. In the basic structure of its task sequence, prompts and templates the tool inherently embodies the practice’s accumulated knowledge about administrative procedures — both those required for legal and contractual reasons, and those it has evolved to further quality, client relationships and efficiency. And it is developing into something much more than that: a key dissemination route and point of access for a wide range of good practice information from internal and external sources, and the main place for staff to record lessons learned in projects.

Using a job management tool as the interface enables a proactive, just-in-time approach to knowledge. Where other approaches rely on staff to search, and perhaps overwhelm them with long hit lists, this makes it possible to offer them selected, relevant information just when it is most likely to be useful. And they can be prompted to contribute new knowledge just when it is most likely to arise, as well. This suits an environment where day to day work is tightly focused on the job in hand, the need for knowledge usually springs from a problem with the job, and new knowledge arises largely as lessons learned on the job. Further, channelling guidance and lessons learned — in both directions — through a single tool which is in everyday use, at the time when people are most likely to be receptive, significantly reduces the psychological and practical barriers to both the recording and the re-use of knowledge.

Knowledge can age surprisingly fast, so the whole system is designed to evolve. Document templates, for example, are frequently updated in the light of comments from staff, conclusions from workshops, feedback from management meetings and project evaluations, and changes in legislation. Links to web sites, calculation tools, internal guidance documents and examples of best practice are also kept under review. Having one central repository makes changes easy and ensures that users can only see the latest versions.

To encourage the flow of new knowledge, the system automatically sends messages prompting job leaders to carry out project reviews, and there are simple electronic forms for recording client feedback and the results of project audits.

Broadway Malyan’s Sustainability Review 2005-6.
Sustainability — in design and in business — is a good example of an increasingly important capability that knowledge management can help to develop.
— with guidance on how to carry them out. Lessons learned become available to everyone as soon as they are entered into the system.

The tool helps management, too. For example, emails are sent automatically to let relevant directors know when projects pass key stages, and concentrating information such as audit results in a single database makes it easier to see trends.

Adrian Burton says the keys to success have been:

- designing the tool to give users personal benefits — in this case, making it easier and quicker to generate project documentation and contacts lists than by conventional means
- involving staff in the development, using questionnaires, focus groups and newsletters to get the benefit of their ideas and encourage them to feel ownership of the system
- testing the business processes manually before software development starts to ensure that they are pragmatic and flexible
- keeping the process flexible and allowing staff to override the software, so that it is seen as a help, not a straitjacket.

Bespoke software like this is expensive to develop: Broadway Malyan estimate the Business Process tool has cost around £70,000. But it meets their needs in a way no commercial software could approach, and if it succeeds in raising the standard of project management throughout the practice to near the best, helps capture and disseminate lessons learned from experience, and enables architects to spend less time on dull administration and more on creative design, it will pay back its cost very quickly. The signs so far are good, and Broadway Malyan are very pleased with it.
Yellow Pages
Participation in Spreading the Word convinced Broadway Malyan that they needed to do more to connect people and encourage them to share knowledge directly, person-to-person. To do this, people need to know who to talk to — easy in a practice of a dozen or two where everyone knows everyone else, but difficult in one with 430 staff spread across 10 offices. Some kind of ‘yellow pages’ directory is essential.

Broadway Malyan already had a skills database, but it was unhelpful and little used. It only gave an incomplete picture — information on CAD skills and training courses attended was kept elsewhere, for example — and the content was variable in quality.

The main features of a completely new system have now been finalised and software development will start shortly. The system is designed to make all the key people-related information available through one tool, and to serve several purposes:

- making it easy for all staff to discover who knows what, and to make contact with each other
- mechanising the generation of CVs for use in marketing documents
- personnel management functions, including keeping training records and generating reports for use in staff appraisals; these will draw both on the Yellow Pages themselves and other sources such as timesheet records
- providing an alternative point of access to the lessons learned recorded in the Knowledge Forum
- acting as the hub of electronic Communities of Practice. Key topics will have an appointed moderator and staff will be able to post questions and sign up for email alerts when relevant contributions are made to the Knowledge Forum.

Training records will be entered by office training coordinators to ensure that descriptions are consistent, and when new records are entered the system will automatically email trainees to prompt them for feedback on courses.

Some details still remain to be designed, and (like the Business Process tool) the system will continue to evolve for some time after it comes into use. It is not yet clear, for example, how skills can most usefully be recorded. Searching is easiest with pre-defined categories (but they are inflexible) and skill levels (but they may be applied inconsistently), while free-form descriptions are richer, but variations in terminology (‘housing’ and ‘residential’, for example) complicate searching.

Experience in other industries has shown that details and psychology can make all the difference to the success of knowledge management initiatives, and the system is being designed to use carrots and sticks. Simplification of tedious administration is an attractive carrot, while the default entry for skills is one of the sticks: it declares ‘I have no skills to offer’. It remains to be seen how well these work.

Contact Database
It is as important to know who you know outside a practice as inside it. Until recently, Broadway Malyan’s records of external contacts were in much the same state as their skills records: often out of date, and divided between several unconnected systems: a main contacts database, separate marketing and event invitation mailing lists, and numerous private lists in MS Outlook. These are now being replaced by a new database designed to provide a single repository for contact data, link it richly to other related data, and create a system which is both easier to maintain and more useful.

Each Yellow Pages entry will include:

- a summary of key and specialist skills at the top of ‘My Page’
- contact details
- links to current and recent projects
- ‘My contribution’
- CPD records
- ‘Skills I can offer’
- ‘My knowledge’
- CV experience
- ‘More about me’
- tools to generate a CV and appraisal report, request a business card, and report a database error
- a link to ‘my timesheet’
There are numerous proprietary contact databases (not least MS Outlook itself), and many of these incorporate powerful and useful facilities. Broadway Malyan examined several, but concluded that bespoke software tailored to their particular requirements and IT environment would be a better buy despite its probable higher cost. They found that commercial software was heavily biased towards salesmen, emphasising activities such as recording conversations and following up leads which are peripheral in design practice at the expense of simplicity and ease of use. It would be more difficult (and in some cases impossible) to integrate with the practice’s other systems and databases, too.

The system Broadway Malyan have developed is user-friendly and tightly integrated with the practice’s Business Process tool and staff and other databases. New and updated information entered into contact fields in any of them immediately becomes available to all, greatly reducing the effort of keeping information current and avoiding information conflicts.

Integration also allows the database to keep staff informed about:

- what projects contacts have been associated with
- with which consultants the practice has framework agreements
- who knows who.

Finally, the system is designed to go beyond its basic function of providing contact and contact-related information and mechanise a number of tedious administrative tasks. Additional services include:

- mail-merged letters, address labels, and ‘remind me’ messages
- project contact lists
mailing and invitation lists for specific purposes

links to related information on the web such as route finders, directory enquiries and street maps.

Facilities like these give staff immediate, visible benefits which encourage them to help keep information current.

**Induction process**

Broadway Malyan does not have a systematic mentoring system, but it has recently revised its staff induction process to give some of the same benefits.

It is easy to forget the amount of knowledge new entrants need to absorb to learn 'how we do things around here'. Packing it all into one or two days of briefing can easily overload them. Broadway Malyan's new system:

- splits induction briefing into small, digestible packages
- allows people to learn at their own pace on a flexible timetable
- uses a variety of media to suit different areas of work, including the practice's public website, its intranet and animated software demonstrations as well face-to-face briefing
- uses electronic checklists to ensure that entrants meet all the people they need to and are briefed on all the topics they need to know about (without being burdened by information irrelevant to their jobs). Where appropriate, the checklist is linked directly to electronic briefing material.
- maintains an audit trail showing when people are satisfied that they have been adequately briefed on each topic
- includes a meeting at the end of the process to review any training needs.

Last but not least, the process enables new entrants to make a range of personal contacts spread over enough time for them to be individually memorable, and creates a starting point for building a personal network and sharing knowledge in future.

Together with the new databases and tools Broadway Malyan are developing, the new induction process should mean that, in the future, the knowledge in the heads of its staff becomes more and more of a shared asset.