Taming the Email Tiger

Sorting out the mess: how a 4D decision-making methodology transforms the risk, productivity and effectiveness landscape of any organisation that uses Microsoft Outlook.

Stephen Daryl Barnes
Chief Executive, Commonsense Business Systems
sbarnes@orla.org

Hugh Terry
Director, Commonsense Business Systems
hterry@orla.org

April 24, 2007

“We live in this Wild West of digital communications now, but I think there’s a lot of hope for the future.”

Eric Horvitz, Microsoft Research

www.orla.org

1 Title adopted courtesy of the Paper Tiger Productivity Institute, Mrs Barbara Hemphill (http://www.productiveenvironment.com/)
2 Educated at the London School of Economics, Stephen is a lawyer-turned-information-management specialist. He founded Commonsense Business Systems Inc in 2002 to seek a solution to the seemingly intractable problem of email overload in the modern enterprise.
3 Hugh is an actuary by profession, a McKinsey alumni, serial entrepreneur and, since 2004, a director of and partner in Commonsense Business Systems Inc
Table of Contents

1. Executive Summary .................................................................................................................................................................................. 3
2. Introduction ........................................................................................................................................................................................................... 6
   2.1. Email presents a unique set of challenges ............................................................................................................................... 6
   2.2. Email is not just a communication medium ........................................................................................................................................ 8
   2.3. Email has taken on a life of its own. .......................................................................................................................................................... 8
   2.4. Email: the universality of the experience ............................................................................................................................................. 9
3. All Gone Wrong ........................................................................................................................................................................................................... 11
   3.1. Common email-management mistakes ......................................................................................................................................... 11
   3.2. The present email paradigm has failed us. ............................................................................................................................................. 11
   3.3. Why existing ‘email-training’ methods mostly don’t work. .............................................................................................................. 12
4. Drivers and Change ............................................................................................................................................................................................................. 17
   4.1. Personal workflow management (4D triage) ................................................................................................................................. 17
   4.2. Business risk management ................................................................................................................................................................. 20
   4.3. Knowledge management .................................................................................................................................................................. 24
   4.4. A change-management problem ...................................................................................................................................................... 25
5. A Model Information Infrastructure ................................................................................................................................................................. 28
   5.1. Diagram ........................................................................................................................................................................................................ 28
   5.2. Discussion ................................................................................................................................................................................................... 28
6. Personal Workflow Management ................................................................................................................................................................................. 31
   6.1. Outlook is the starting point for a solution .................................................................................................................................... 31
   6.2. The problem with Outlook .................................................................................................................................................................. 31
   6.3. Using Outlook in 400 million different ways ................................................................................................................................. 32
7. Redesigning Outlook ........................................................................................................................................................................................................... 33
   7.1. The challenge .................................................................................................................................................................................................. 33
   7.2. Ditch-Deal-Delegate-Decide .............................................................................................................................................................. 33
   7.3. Cohesive, holistic, complete ............................................................................................................................................................... 33
8. The Orla Solution ............................................................................................................................................................................................................. 38
   8.1. An empty inbox ................................................................................................................................................................................................ 38
   8.2. Learning ..................................................................................................................................................................................................... 40
   8.3. Measuring change ................................................................................................................................................................................ 44
   8.4. Results ................................................................................................................................................................................................................. 46
   8.5. The big picture .................................................................................................................................................................................................. 48
9. Conclusion ......................................................................................................................................................................................................................... 49
10. Acknowledgements ........................................................................................................................................................................................................ 50
I. Executive Summary

Email is a phenomenal technology, but it has serious problems that reduce its usefulness. We are living in an unparalleled era of information exchange where the number of email messages is relentlessly growing, and where the volume of unstructured and unmanaged information is threatening to swamp all the productivity gains brought about by the advent of personal computing in the early 1980s.5

Email is here to stay; indeed it is now an official part of language.6 The notion of ‘email overload’ was identified in 19967 but was first mooted 14 years earlier, in 1982, when Peter Denning, the president of the Association for Computing Machinery,8 called the pain of working with email ‘The Receiver’s Plight’, asking: “Who will save the receivers [of email] from drowning in the rising tide of information so generated?”9

Nevertheless, email has now become the primary ‘electronic habitat’,10 and there has been considerable academic investigation and research into the phenomenon.11

Email overload crept up on us, eventually sweeping aside our individual efforts to manage it systematically. We had no prior experience with such a killer application, so there was no foundation upon which to envisage the future. Email management techniques and policies did not exist at the outset and we were overcome by the rapid advancements in technology and the seductive benefits of speed, easy communication and a seemingly limitless information-transfer capability. Email overload was caused by a combination of easy-to-adopt yet poorly thought-through technology and a revolutionary change in our communication culture.

This paper discusses ‘email-as-problem’ and identifies the key drivers to ‘taming the email tiger’.

These are:

- The need for an effective personal workflow-management methodology that gives people structured control over their email, making them more effective and productive at work;

- The imperative for enterprises to deal with the risks they face as a result of their non-systematic management and lack of strategic intent regarding email. There is a proliferation of personal information silos, and enterprises are unable to apply any control or systematic corporate governance procedures over them. So it’s difficult or even impossible for enterprises to ensure legal compliance in respect of their email records, and

- The requirement for an organisation to marry the personal workflow-management methodology used by each worker with the knowledge-management tools presently used (such as document-management systems and collaborative electronic workspace technologies) but which are often not delivering to their full potential.

---

5 The Conference Board, Annual Productivity Survey, January 27, 2007. Conclusion: the search is now on in the developed world for new productivity improvements without which economic growth and corporate profits could suffer.


8 http://www.acm.org/


Taming the email tiger begins with a relatively straightforward adjustment to a software interface available to 400 million email users globally. The incorporation of a personal productivity tool into Microsoft Outlook – based upon an intuitive 4D decision-making methodology and also anticipating the existing systems and in-situ technologies of enterprises – is the harbinger to a model information infrastructure that squarely addresses the business-risk and knowledge-management challenges of the modern organisation.

However, today’s ‘email-as-problem’ reality poses a change-management challenge. The drive to evolve the present email experience for the good must come from the very top, as anything less is unlikely to succeed.

Getting the email tiger into its cage requires an effective, software-driven workflow-management modus implemented at the individual level. Based upon the proven 4D decision-making methodology, the new system must:

- Look and feel familiar to everyone, driven by intuition and very simple logic.
- Be easily learned and taught.
- Involve manageable change, with people’s learning progressing according to their personal needs and preferences.
- Deliver immediate, practical benefits to everyone making the change.
- Objectively be seen to improve personal performance, enhance individual effectiveness and increase overall productivity.
- Deliver value in excess of the monetary and intellectual investment required.

We have conceived, developed, built and proven such a software-driven system, based on a 4D decision-making methodology incorporated into Microsoft Outlook.
We call it Orla.12

Outlook ‘out of the box’ does not provide an effective personal workflow-management system - each individual is left to his or her own devices to create their own workflow methodology.

Consequently 400 million people are using Outlook in 400 million different ways!

This paper argues that the Orla 4D decision-making methodology is the missing interface between modern email systems and the people who must work with them. Today, email is just the way our work reaches us – it’s the most recent in a chain of communication phenomena that began with Morse code. When email is considered merely as a communication medium rather than as work per se, people can make discrete decisions about how the work resulting from each email will be managed and organised. Only one of 10 actions can result from an email received, and those actions are driven by a decision to Ditch it, Deal with it now, Delegate it or Decide what to do with it.

The present inbox-subfolder email-management paradigm has failed us. Without a decision-making tool such as the Orla 4D toolbar, workers are merely managing information, not systematically planning and organising the work that results from the email they receive. The inbox, for many, has become a rolling, never-ending, overwhelming, one dimensional ‘to-do’ list from which it is impossible to plan, prioritise or manage their workload. Without a software solution in sight, enterprises have resorted to user training to address the problem, but the results have been universally unsatisfactory due to the persistent challenge of change.

Once the Orla 4D decision-making process is implemented into Outlook and inculcated into a worker’s email-management methodology, a comprehensive personal workflow-management capability reveals itself; the focus shifts from the inbox to the Calendar and Taskpad views, and daily, weekly and monthly workloads can be viewed easily and intuitively. Orla demystifies the technology through simple adjustments to the menu options and a reconfiguration of Outlook’s default interfaces. It also anticipates desirable information-organising outcomes at relevant stages in the workflow-management process. Thus, Outlook reveals its true potential to become an effective tool for organising the corporate world, starting with the individuals who, collectively, comprise the intellectual storehouse of the modern enterprise.

Change, however, is the primary challenge, so Orla has been designed to anticipate and accommodate this. The change involved in 4D-ing email is manageable and easy to learn; the results are fully measured, and value is subjectively experienced and objectively delivered.

Email is not merely a killer application; it’s an unparalleled communications phenomenon. Email technology has proven itself so compelling that life without it at work is barely conceivable. However, if email is not to morph into a ‘zombie application’, its users need to be enabled to truly take back control.

‘Email-as-problem’ has been caused by one simple reality: due to their engineering-centric view of the world, the designers of modern email technologies created email technology systems, not a workflow-management methodology.

The Orla 4D decision-making process finally bridges the gap between the all-powerful technology called email and the human intellect that must operate it. And so email can finally fulfill its true potential to serve the needs of, rather than enslave, its users.

12 www.orla.org
2. Introduction

2.1. Email presents a unique set of challenges

Before discussing ‘email-as-problem’ and why things have gone so badly wrong with the most important communication technology in history, let’s consider the following:

Volume – in 2006, it was estimated that genuine emails are sent by 1.1 billion emails users around the world each day, with 50 billion genuine messages dispatched daily accompanied by at least 120 billion spam. Email traffic is growing at between 10% and 25% per year.

Size - the size of personal email records is increasing exponentially. One study reports that 27% of email-using employees have reached or exceeded the amount of storage space allowed at work.

Overuse - overuse of email is impacting on user effectiveness. 59% of employed American adults admit to wasting a lot of time searching for lost email. Moreover, between 47% (those who earn less than USD35,000 annually) and 65% (those earning greater than USD75,000 per annum) admit to wasting time looking for email they know they’ve received.

Productivity - email has had a profound impact on individual productivity. More than 25% of employed US adults acknowledge that the volume of email they receive causes them to fall behind in their work. In 2005 the Wall Street Journal reported that white-collar workers waste 40% of their day, not because they aren’t smart but because they were never taught organising skills to function in the modern workplace. A typical knowledge worker spends about 2.5 hours per day (or roughly 30% of the work day) searching for information. In a 2007 study, a group of Microsoft workers took, on average, 15 minutes to return to serious mental tasks, such as writing reports or computer code, after responding to incoming email. They strayed off to reply to other messages or browse news, sports or entertainment Web sites. “I was surprised by how easily people were distracted and how long it took them to get back to the task,” said Eric Horvitz, a Microsoft research scientist and co-author of the paper. “If it’s this bad at Microsoft,” Mr. Horvitz added, “it has to be bad at other companies, too.”

Morale & Health - email causes stress. According to some reports, 80% of existing health expenditure is now stress-related. In 1999 it was estimated that job-related stress cost US industry USD300 billion p.a. 71% of white-collar workers feel stressed about the amount of information they must process and act on while doing business; 60% feel overwhelmed.

In 2005 AOL conducted a survey of 4,000 email users on email reliance, and reported ‘an obsessive-compulsive need to check email morning, noon and night.’

42% of vacationers check their business email while on holiday, and 23% check it on the weekend. Employees are taking an average of 1 min 44 secs to reply to a message, with 70% of employees...

13 The Radicati Group: www.radicati.com
14 IDC, Worldwide Email Usage Forecast 2002-2006
15 Fortiva and Harris Interactive
16 c.f. Fortiva and Harris Interactive
17 ibid 13, 14
18 http://online.wsj.com/public/us
19 IDC White Paper: The high cost of not finding information 8/2001
21 Australian Psychological Society, Email communication survey (2005)
22 Center for Disease Control & Prevention reported in Fast Company magazine 2/03 pg. 88
23 Data Communication 2/98
24 Institute of the Future, Menlo Park, California
responding within 6 seconds! The disruption caused is 64 seconds before they get back to work; 40% of such interruptions are self-generated (i.e. not caused by the email pop up). This 2001 research confirmed the findings of a 1994 study, namely that people answer emails as they arrive, treating the technology as they would the telephone. The typical US worker is interrupted by communications technology once every 10 minutes. A 2004 study reported that both interruptions and the consequent task-switching caused by email takes a toll on workers, who tend to spend an average of only three minutes working on any one activity before switching to another.

Negative health effects of this modern phenomenon were reported as early as 1989. Studies showed that the increased pace of work leads to stress, that employee stress can cause serious problems for the organisation, and that the pressure of email leads to a reduction in IQ greater than that caused by the use of cannabis. In a study undertaken by the University of London, “Respondents’ minds were all over the place as they faced new questions and challenges every time an email dropped into their inbox. Productivity at work was damaged and the effect on staff who could not resist trying to juggle new messages with existing work was the equivalent, over a day, to the loss of a night’s sleep.”

Security - email is often the weakest link in the security ring-fence deployed within an organisation, and hidden dangers lurk. Consider:

- Systems-penetration threats due to ‘loose’ passwords and system access codes. Can every enterprise state with confidence that they have this truly under control?

- Technology-inherent risks: senders of email messages may not know who, apart from the recipient, is reading their messages.

- Hardware portability exposure: laptop computers, Blackberrys, Treos and other PDAs with remote access to email need to be protected as if they were behind the internal security ring fence. Have emergency arrangements in case of their loss been seriously considered and implemented?

- Down-liners: your email and other IT systems might be secure but what about the counterparties you deal with? How do you know your messages are not being read by unauthorised parties?

- Employee turnover: each system access granted must be tracked so that it can be rescinded once an employee leaves the company. Do the employees have access to security-critical dimensions to email too?

Legal Compliance – discussed at length in section 3.2, enterprises face increasingly pervasive legal responsibilities: vicarious liability, data-management and privacy legislation, liability to stakeholders for risk of business interruption and liability under industry regulations and statutory instruments. Can an enterprise be satisfied that it is truly email-complaint across all areas and that serious business risks are fully minimised and mitigated?

---


29 2005 Institute for Future & Gallop


36 http://technology.guardian.co.uk/online/news/0,12597,1465973,00.html
Performance Degradation - in a survey conducted by Osterman Research, a typical worker in a large organisation sends or receives 108 emails in a day, or more than 25,000 each year.\(^{37}\) Over the years, the nature of each email sent and received has changed. No longer mere text, the size and nature of attachments are growing at an exponential rate. In 2007 the average corporate user of email requires 17.5MB of email storage space every day. This is expected to reach 21.3 MB by 2009.\(^{38}\) This has serious implications for bandwidth performance, storage and overall systems capability. This has led to IT departments imposing arbitrary policies about mailbox or drive-size availability, which further perpetuates a non-systematic approach to email management (namely, what to keep - and why - and where to put it).\(^{39}\)

Cost - the productivity lost by overtaxed multitaskers cannot be measured precisely, but it is undoubtedly great.

Jonathan B. Spira, chief analyst at business-research firm Basex, estimates the cost of interruptions to the American economy at nearly USD588 billion a year.\(^{40}\)

Moreover, 28% of knowledge-worker time is spent on what they deemed interruptions and recovery time before they return to their main tasks. If you earn USD50,000 p.a., the cost of a minute is about 50 cents. If you’re distracted or interrupted twice an hour and it takes you five minutes to recover from each interruption, the cost of interruptions is USD40 per day, USD200 per week or USD8,000 per year for a 40-week working year. According to one study, Americans spend 9,000,000 hours per day searching for misplaced items.\(^{41}\) Email overhead has been assessed too: the cost of acquiring, implementing, managing and using an email system is USD4,189 per user per year;\(^{42}\) emails and their attachments have increased print volumes by 40%,\(^{43,44}\) data storage is growing at 80% annually and hard-copy output costs between 1% and 3% of a company’s total revenue.\(^{45}\)

2.2. Email is not just a communication medium

Research stretching back 20 years has demonstrated that people use email for much more than just communication. Work as early as 1988\(^{46}\) showed that email was being used for time-management and task-management. In 1996 researchers illustrated that email folders and the inbox in particular were being used as reminders of ‘to-do’s’, ‘to-read’s’ and ‘on-going correspondence’, and as a place to keep items of ‘indeterminate status’ until their significance (or otherwise) became clear.\(^{47}\) The term ‘email overload’ was born; email was being used in a fashion never envisioned by its inventors.

2.3. Email has taken on a life of its own.

Although email has long been a panacea for universal communication, according to Radicati Group Research, as of September 2005 50% of US companies had still to put an email-use policy in place.\(^{48}\) This is despite the easy availability of expert advice and guidance so freely available on the Internet. The ePolicy Institute offers the following best-practice advice on when to avoid using email.\(^{49}\)

\(^{37}\) White Paper: End User Study on Email Hygiene, April 2005
\(^{38}\) Hewlett Packard / Radicati Group White Paper: Taming the Growth of Email, March 2005
\(^{39}\) Hurley J., Sustainable IT Compliance; IT Observer, August 2006 http://www.it-observer.com/article/1222/sustainable_it_compliance/0
\(^{41}\) www.myorganizedlife.com
\(^{42}\) Creative Networks
\(^{43}\) Document Magazine 2/05
\(^{44}\) Abigail Sellen and Richard Harper: The myth of the paperless office
\(^{45}\) www.smartbusinessmag.com 7/2001
\(^{48}\) White Paper: Corporate Email User Habits, pg. 14, September 2005
\(^{49}\) www.epolicyinstitute.com
• Don’t use email where a message is extremely important, confidential or involves proprietary corporate information and the risk of breach of privacy is too great.

• Where you want to conduct negotiations or hold give-and-take discussions. These take time, nuance and context that email ill affords.

• Where you need to interview a person at length, with many questions requiring detailed answers.

• Where you must deliver bad news or discuss emotionally charged matters.

• Where an immediate response is required and the other party doesn’t check email frequently or has a reputation for procrastination. The telephone is the communication medium of choice in these circumstances.

• Where a written message might intimidate or turn off the reader.

• Where there’s the possibility that a written message will be misunderstood or misconstrued.

With so many enterprises having so little formal structure to their email practices, significant personal disorganisation has ensued, with all of the attendant negative effects on productivity and human performance. ‘Email-as-problem’ is getting worse, not better.

2.4. Email: the universality of the experience.

Email is loved and hated in equal measure. There is no doubt that email can still hit the ‘sweet spot’ with its ability to deliver important information almost instantaneously. When we lose our email connection, we feel lost.

However, ‘email-as-problem’ is so commonly experienced that it invokes an almost universal groan when discussed socially.

Email volume is now unwieldy. We simply get too much of it; this is both demotivating and stressful. Even the perception of the work involved in email takes its emotional toll.

We get too much junk mail, both external and internal. Whilst modern spam filters have served to cut down much of the unsolicited email from external sources, the unstructured email practices of work colleagues mean that we receive unwarranted cc’s, reply-alls and irrelevant announcements. Much email received is simply not relevant to the receiver.

Due to the nature of email and the ease of communicating through it, most users demonstrate relatively poor thinking when they send emails. We receive too many ‘worthy’ emails and are expected to respond too quickly, so the quality of email as a communication medium has been devalued. Moreover, due to wide circulation of information to a list of recipients, there may be either too little or too much material in any given email to best serve the needs of the recipient. This makes for ineffective communication, thereby further devaluing the technology.

Extended absences from the office, for vacation or unscheduled absenteeism (usually down to ill health, often stress-related) make the return to work an almost nightmarish experience. We usually have to wade through a great volume of material and information at a time when immediate priorities are pressing, and often those priorities have to be gleaned from the unread emails commanding our attention.

The Blackberry and other ‘always-on’ mobile email technologies have led to the blurring of the boundaries between work and personal time. Users justify them as ‘convenient’, but for many they
are merely a mechanism to simply keep up. This impacts health and creates the reality, for better or worse, that employees are always ‘on’. Blackberrys have not been called ‘Crackberrys’ without reason.\textsuperscript{50}

The phone and personal interaction are now seen as less important than emails. This has depersonalised the workplace, tending to ineffective communication, misunderstood intentions and unproductive work practices. For many, work is no longer ‘fun’.

\textsuperscript{50} http://crackberry.com/
3. All Gone Wrong

While ‘email-as-problem’ is well understood by management and those workers who suffer its effects, business leaders have long-pondered the issue but have mainly come up empty-handed in their quest for a solution.

3.1. Common email-management mistakes

In a Smartbiz article, Brian Murphy discusses the five most common email-management mistakes that businesses are making today:

- Believing it is feasible to run your business without some form of email-management system.
- Destroying email by auto purges or mailbox caps. This contravenes record-keeping policies and obligations across many legal compliance and business risk-management fronts.
- Using backups as an archive. The problem with this approach is that unindexed email records are difficult and expensive to search, especially when the request for such records is typically mission- or business-risk-critical.
- Assuming that existing document-management systems are an acceptable technology to handle email archiving. The volume and indexing challenges for email archiving across an enterprise are substantially different from standard document-management challenges.
- Implementing an email retention policy that was optimised for paper. Email is not paper. The classification processes used for paper simply don’t work with email because:
  - i. the sheer volume of email exchanged makes it impractical to classify everything;
  - ii. everyone uses email;
  - iii. the administration of email isn’t easily delegated, and
  - iv. there’s an almost infinite number of possible classification criteria, making it impractical for end users to classify all of their messages.

3.2. The present email paradigm has failed us

Software vendors and business managers have not been forthcoming with a ready-made email-management capability designed to serve workers’ workflow-management needs, so people have created their own individual way of handling email.

The research in this area indicates how workers have adopted to the challenge of email in the modern workplace.

People working with email have been categorised as ‘cleaners’ or ‘keepers’, or as ‘what-is-the-purpose-of-this-email?’ classifiers – sorting their email according to the role it plays for them in their work (e.g. request, deliver, propose, commit, remind, amend, refuse, greet and the like). An AOL

---

51 Murphy, B., The Five Biggest Email Management Mistakes www.smartbiz.com/article/articleview/1433/1/3
A survey of 3,000 users identified six types of email sender, defining them according to the way they format and respond to their email:54

i. The Cryptic – whose messages are crafted full of acronyms and abbreviations.
ii. The Author – where emails are written full of prose.
iii. The Forwarder – who forwards every joke and chain letter.
iv. The Player – happy to blame server problems for emails received but not attended to.
v. The Smiley – decorates emails with cartoon smileys and the like.

Moreover, the increasing volume of email and the pace at which it is exchanged have conspired to coerce workers to deploy the most simple email-management methodology within reach, just in order to survive. This methodology consists of:

i. Inbox
ii. Delete
iii. Reply/Forward
iv. Subfolders
v. Sent Items
vi. Compose New Email
vii. Flags for prioritising
viii. Rules for shunting emails directly into Subfolders
ix. Archive

This methodology (the 'Inbox-Subfolder Paradigm') has now become entrenched, making the change-management challenge immense. This simplistic model effectively turns the inbox into a one dimensional, never-ending, rolling to-do list. It provides no notion of priority and no sense of order, and deprives the worker of any chance to plan work across time.

The worker may know where the necessary information is to be found, but this email-management model does not, in any meaningful sense, tell him/her what activities he/she ought to be working on at any point in time, or in what order. Mission-critical information will be scattered amongst multiple emails and a variety of folders, so the worker will mostly be working reactively, not strategically. A universally applicable personal workflow-management capability has proven impossible to achieve within this paradigm.

3.3. Why existing ‘email-training’ methods mostly don’t work.

The challenges of ‘email-as-problem’ in the modern workplace are well understood. Many training methods have been consistently tried since the scale of the issue raised its head more than 10 years ago. However, since ‘email-as-problem’ is caused by technology, a crucial part of the solution must be based in technology. Without technology to enable the change to the good, most email-training initiatives fail to deliver long-lasting meaningful outcomes, as they ultimately stand or fall on changing people’s behaviour.

Not unexpectedly, the change-management challenge rears it head and stands in the way of universal success.

With email rapidly becoming an all-consuming problem for both workers and the enterprises they serve, email can be said to have gone far beyond the realms of a ‘Killer App’ and taken on the qualities of a ‘Zombie App. The pressures of time,55 incumbent investments in non-performing technologies,56 senior management reluctance to recognise email as a significant issue to be

55 The average desk worker has 36 hours of unfinished work on his desk and spends 3 hours per week sorting piles trying to find the project to work on next: Richard Swenson: The Overload Syndrome: Learning to Live Within Your Limits (1995) Navpress.
addressed and the perennial challenge of change all conspire to make ‘email-as-problem’ an intractable dilemma that all-too-often falls into the ‘too hard’ basket.

However, there is real value in ‘doing it right’. Focused, comprehensive user training in the effective use of email has been shown, on occasion, to bear significant fruit.

Dr. Monica Seeley, CEO of Mesmo Consultancy, is a change specialist based in the United Kingdom. She develops email charters and tailored workshops for companies seeking to improve their workflow-management processes. Here’s an example of how she has brought about improvements in email management:

In 2004, a UK construction company was seeking assistance in getting to grips with ‘email-as-problem’. An internal change-management programme was created, called ‘Easy Email’ as a distinctive brand. The programme was delivered enterprise-wide to a dispersed and mobile workforce of several hundred people, involving optional training and an intensive internal marketing campaign.

Brought about as a result of widespread internal complaints about staff spending too much time on email, with their inboxes always full, Dr. Seeley’s focus groups revealed that:

- Email volume was too great.
- Attachment sizes were problematic.
- People were using email to ‘get the monkey off their backs’.
- Unrealistic expectations of an immediate response were de rigueur.
- Emails were preferred to talking.
- Notions of compliance were not a key consideration in the psyche of the workforce.

The ‘Easy-Mail’ programme involved an Outlook fitness check; the crafting of an email best-practice user guide; workshops and online tips and tricks for effective email management. The programme was wrapped in an email charter called CUSTOMS (Communicate clearly, Use attachments with care, Stay within the law, Think of the recipient, Organise your time at your inbox, Master the software, Select the right way to communicate).

The programme was specifically branded and aggressively marketed internally. It involved office posters, comprehensive information packs for each person, a pocket-sized CUSTOMS guide, stickers, a calendar with a ‘tip per month’ and a copy of the slide presentation used at the workshops. The intention was to make it fun as well as part of daily work.

Out of 1,000 employees, 400 staff participated, 65% attended the optional workshops and 75% returned the surveys. All respondents reported that the time spent learning was worthwhile and that they would each be doing at least one thing differently, confirming that a change in email behaviour was intended by those responding.

Three months later, informal feedback revealed that the initiative had reduced the number of times per day people felt they needed to check email, reducing stress levels and some of the pressure around email. Additional benefits included improved time-use effectiveness and inculcating a new approach to email and methods of communicating.

---

59 Reported in: E-mail Management, Goodman, (2006), Chapter 14 pp 87-90.
'Easy-Mail' continued after the formal programme had ended, taking in continuing hints and tips and 'presence' inside the firm.

This programme highlighted the technical issues surrounding email overload, so internal systems adjustments were carried out, leading to the removal of inbox quotas and the implementation of centralised storage of email archives.

There is no doubt that addressing 'email-as-problem' can positively affect the bottom line and overall productivity of an enterprise.

A four-year study into how information flow affects white-collar productivity in the context of a mid-sized executive recruitment concern revealed statistically significant relationships between the structure of a recruiter's internal email network and the recruiter's success at getting and undertaking his/her business (i.e. landing and executing contracts). Results showed that sending smaller emails was associated with better performance in getting and executing business; whilst receiving prompt responses from colleagues led to success in executing, but not gaining, business.

This study is illuminating as it demonstrates the value of getting email 'right'; but getting it right will depend on how the enterprise derives its economic value. A recruitment firm brokers information between parties and is an ideal environment in which to test the effect of email on productivity. The information-management challenge is not overwhelming; the information is the business and the flow of that information is the enterprise's lifeblood, so the firm needs simple information-management structures so that email use itself can be gleaned as contributing to the value created within the organisation.

Whilst not widely applicable to every company, these findings are probably relevant to such enterprises as law firms, consulting businesses, accounting practices and those engaged in the provision of immigration services.

The bottom line is that there is presently a dearth of meaningful data in this area.

What is clear, however, is that most initiatives undertaken to tame the email tiger have typically proven ineffective over the long haul. The problem persists and grows. The reasons for the failure are:

- A lack of support from the top down.

Meaningful change will only come about if it is driven from the Chief Executive down.

- Ineffective training methods.

**Most training methods do not involve hands-on practical guidance, focused on a worker's own real-world workload – this is not an optimum learning environment.**

While training that happens away from the worker's desk might well provide a 'peaceful' environment that allows a worker to reflect on the problem of email overload and to contemplate the mooted solutions, the reality is that with every hour that a worker spends away from his/her 'real work', more and more emails are arriving, so the problem, in the mind of the worker, is just getting worse. People find themselves trapped in a hamster-wheel-like experience of email, so taking them away from it in order to try to remedy it merely means that most workers feel they'll have to run that much harder when they do eventually get back to their desk once the training is complete.

---

60 Bulkley & van Alstyne: Does E-Mail Make White Collar Workers More Productive? (School of Information, University of Michigan)

61 "One of the biggest causes of wasted training dollars is ineffective methods. Too often, companies rely on lectures ('spray and pray'), inspirational speeches or videos, discussion groups and simulation exercises. While these methods may get high marks from participants, research (ignored by many training professionals) shows they rarely change behaviour on the job. Knowing isn't the same as doing; good intentions are too easily crushed by old habits. Another way of wasting dollars is failing to link training with organisational strategies and day-to-day management behaviour. What happens in the classroom and what happens back on the job are often worlds apart." - Jim Clemmer, Achieve Global Inc. (http://www.clemmer.net/)
• The change proves to be unmanageable.

It’s a fact of life that external training initiatives don’t come cheap. Leading thinkers and the intellectual property they offer in corporate training programmes are very expensive. Consequently, many of the resulting courses are jam-packed with material that ultimately only adds to the burden of information overload on the worker. More often than not, the provocative and wholly valid change messages and solutions require simply too much change all in one go for the average person. These burdensome change initiatives, combined with the ineffectiveness of the training methods, defeat the worker’s best intentions to make a change for the good.

• No software tools are provided to support the change.

**Similarly, few if any initiatives designed to bring about change in the way workers manage their email are supported by easy-to-use software tools that can be incorporated easily into the enterprise’s existing email systems.**

‘Email Trainers’ are usually not software developers, and the culture of the training industry typically promotes the notion that it is down to each individual to rise to the challenges faced in getting to grips with email overload (and that involves the use of existing technologies – which are actually the cause of the problem).

Moreover, the ‘IT guard-dogs’, especially in larger enterprises, typically don’t see any real problem (for them email is a ‘good’ technology; the weak link in the chain is the user who can’t master it). So they’re reluctant to add any additional software to the networks they so carefully manage (unless, of course, it’s their own idea in the first place!).

Managers themselves often fall victim to this syndrome – they prefer to delegate any decision involving software to their IT team, and thus they refuse to accept their responsibility to assess critical business needs. So software tools, even if they were available, quite often would not get past first base without a heavyweight internal sponsor championing the issue.

• Cynicism about the role of email training initiatives.

The phenomenon of ‘email-as-problem’ has been around for many years, and people have invested a huge amount of time, money and intellectual effort in training programmes in an attempt to come up with a meaningful, practical solution. Yet those training programmes haven’t worked. So now there is a great deal of cynicism about the entire notion of spending more good money and effort on initiatives that are unlikely to produce a satisfactory, permanent result.

**In fact, very few training programmes appear to offer any meaningful financial justification for the purchasers’ investment, and it often appears as if consultants in whole swathes of the training industry have disclaimed responsibility for justifying their clients’ expenditure on their services.**

Perhaps it’s all too hard, immeasurable or unnecessary? Certainly in the case of Australia (with a population of just 10% of the USA), more than A$4 billion (c.USD3.2 billion) was spent on structured training initiatives in 2001/02, and one wonders whether there was any meaningful assessment as to the likely return on investment. The expense data is available, but sadly, information on the resulting Return on Investment is not.62

Providers of email training programmes (much like those who provide advertising services) seemingly eschew the notion that they need to manifestly demonstrate a return on investment for their clients. Complete, statistically sound performance-measurement methodologies are conspicuously absent.
from this arena, and the phenomenon has undoubtedly led to skepticism about the ability of such training programmes to deliver value in excess of the investment expended. This, therefore, perpetuates ‘email-as-problem’ for the enterprise.
4. Driver and Change

There are three key drivers to tame the email tiger, each contingent upon and impacting on the other. These key drivers are evidence of a need for a personal workflow-management methodology that, within the context of an enterprise-wide information infrastructure, supports the management of business risks.

An effective personal workflow-management methodology should also dovetail organically into a system for accommodating the enterprise’s workgroup collaboration needs and intellectual asset-sharing requirements. With the right tools and techniques, this will lead to profound improvements in personal and corporate productivity.

As we shall see, it is very easy to accommodate these drivers from a systems implementation perspective, but the principal challenge is change (or rather, people’s resistance to change). People must be willing to move their cheese!

The three drivers are:

- Personal workflow management (4D triage)
- Business risk management
- Knowledge management

4.1. Personal workflow management (4D triage)

A personal workflow-management system should be deployed enterprise-wide to enable every individual in an organisation to seamlessly dovetail their day-to-day workload-management activities into an overall information infrastructure.

It has been the lack of such a generally available personal workflow-management system that has effectively thwarted a meaningful approach to taming the email tiger. And so ‘email-as-problem’ universally persists.

Neither Outlook (Microsoft), Lotus Notes (IBM) nor GroupWise (Novell) – the three most prevalent email systems found on desktop computers today – provide a critical decision-making path that enables workers to manage and take action on the emails they send and receive. Instead, workers are faced with ‘mere’ technology, comprising features and functionalities that encourage them to use technology (‘bells and whistles’) rather than make decisions about what their next action should be once they receive an email. These next actions, cumulatively, represent task-scheduling, resource-organising and information-management activities that are the genesis of modern workload planning.

A critical error, it is submitted, has been made that, to date, remains unrectified in the design of email software. It is this design error that is ultimately responsible for the malaise known as email overload.

Once an email hits the inbox, a human decision-making capability is required in order to determine what happens next. Whilst technology can redirect this email to another place, only the recipient can determine what next work action should take place. Email research detailed in the literature discusses the concept of email triage,\(^{63,64}\) - namely the process of going through unhandled email and making a decision about what to do with it.

---

\(^{63}\) Neustaedter, J., Berheim Brush, A.J., & Smith, M.A. (2005). Beyond ‘From’ and ‘Received’: Exploring the Dynamics of Email Triage. CHI 2005, April 2-7, 2005 Portland, Oregon USA, ACM 1-59593-002-7/05/0004

This is necessarily an exclusively human function, and email software has almost completely failed to recognise this reality.

**The ideal triage activity is the 4D decision-making process.**

Building on the Outlook / Notes / GroupWise design-logic flaw, many companies, researchers, renowned authors and academics have examined the challenges of email management; many products have been developed, and some have been commercialised. None, with the singular exception of GTD by David Allen, have yet latched on to the key reality that a human being has to make an organising decision about any email sent or received. It is that decision-making dynamic that forms the crucial point of interface between technology and the humans who must work with it.

Commercial offerings that have emerged in an effort to deal with ‘email-as-problem’ include:

- **Nelson Email Organizer** - an Outlook add-on that shows myriad views of emails, e.g. by date, by sender, by attachment etc., creating a cataloguing system to replace Outlook’s.

- **Clearcontext** - another add-on to Outlook that provides automation to prioritise incoming email, associates related information together and mechanises the process of taking action on email.

- **Xobni** - a project called North Beach (but yet without a product), designed to provide in-depth analysis of email usage, seemingly to provide tools to advise of non-productive behaviours, thus coercing users to reflect and to rectify their behaviour.

- **Sperry Addins** - these are a typical collection of additional features extending the existing capabilities of Outlook without actually providing a cohesive personal workflow-management capability.

- **Franklin Covey Planner** - a very high-level planning tool for Outlook that delivers value out of weekly planning but does not in or of itself drive or support the idea of decision-making in relation to work received via email.

Research into email management possibilities has explored:

- A 1992 prediction that organisations would remove email systems once the negative effects on productivity were proven.

- The categorisation of email messages without imposing a requirement to create and maintain rules, allowing for prioritised email reading.

- Email perceived as a metaphor - namely (1) email is a filing cabinet that extends human information-processing capabilities, (2) email is a production line and locus of work co-ordination, and (3) email is a communication genre supporting social and organisational processes.
• The role of the inbox in task management. Concluding that the inbox is a poor place to coordinate the management of tasks resulting from the email it contains, changes should be made to better support the tasks that result from email received. The author, a PhD candidate, concluded that getting control over email is ‘a daunting task’.

• In 1997, the potential for the use of visualisation based on ‘time of arrival’ as the principal arrangement to display email. This research was carried forward in 2002, when it was concluded that visualisation of tasks across time aided the efficiency in finding information in messages related to tasks.

• Researchers from Microsoft in 2001 proposed new email viewing arrangements ‘by threads’ (which was introduced in Outlook 2003). Comprehensive work subsequently undertaken in 2005, also involving Microsoft researchers, revealed that the concept of grouping emails by thread was not proving of great use. Out of a study population of 233 subjects, 27% didn’t know of the ‘group threads by conversation’ feature inside Outlook, and 26% knew about it but didn’t use it. Those who did use threads, according to the study, did so only ‘occasionally’.

• Factors other than the importance of the message determine how people think about and handle their email. Email usage appears to reflect differences in how a message is perceived, depending on the personality of the reader, the demands of work and the relationship between the sender and the recipient.

• 2003 research concluded that the inbox experience should be rethought not in terms of messaging, but in terms of the activities that people are trying to accomplish.

In their comprehensive 2005 review of the existing email-related literature, Nicolas Ducheneaut and Leon Watts assessed the research undertaken to date and agreed that, whilst building an effective email system should draw down on empirical analysis and design, there had been little research to date into the theory surrounding email software interfaces.

They took the view that the theory that might best apply to the research would depend on the researchers’ views as to what email actually is. Is it a communication tool? An archive? A collaboration tool? Is it a problem of attention allocation? They urge a real debate on what email actually is and does.

These authors concur. Once you clear away the smoke and mirrors of obfuscation caused by the nature of email technologies and the approach to their development, certain realities become self-evident:

• Email is merely a communication medium. It is the way most of our work now reaches us.

• The inbox is just the gateway to our working life.

• An email itself is not in or of itself ‘work’ per se. Our work is what we actually do. Email is merely communicating to us something we need to know or consider in relation to our work.

74 Gwizdka, J., Reinventing the Inbox – Supporting the Management of Pending Tasks in Email (2002). CHI, April 20-25 2002 Minneapolis, Minnesota, USA ACM 1-58113-454-1/02/0004
78 Neustaedter, J., Berheim Brush, A.J., & Smith, M.A. (2002) Beyond ‘From’ and ‘Received’: Exploring the Dynamics of Email Triage CHI 2005, April 2-7, 2005 Portland, Oregon USA, ACM 1-59593-002-7/05/0004
81 Ibid 11
• As a discrete piece of information, each email can have a decision made in relation to it that will allow us to progress our work forward.

• Considered merely as a discrete piece of information, each email can be actioned according to the needs of our work, whereupon it becomes 'context-relevant'.

• In making a decision about each email and engendering a 'context-relevant' outcome from that decision-making exercise, we 'organise' our work and create a personal workflow-management methodology.

• There are only 10 'context-relevant' actions for any email received. These are:
  i. Transfer to the deleted items folder.
  ii. Prioritise and treat as 'super-urgent'.
  iii. Delegate the work resulting from the email to another person.
  iv. Keep email close to hand to accommodate a short-term filing requirement.
  v. Put the email away for good to satisfy a long-time filing need.
  vi. Associate the information with appointments and meetings you need to schedule or have previously scheduled.
  vii. Associate the information with today’s tasks to be completed.
  viii. Associate the information with future tasks to be completed.
  ix. Associate the information with, or as, a matter 'pending'.
  x. Collect the information, categorise it according to need and then save it away for active reference.

• These 10 context-relevant actions occur as we ‘triage’ our email.

• In the context of Microsoft Outlook, the definitive triage outcomes are achieved through the adoption of the 4D decision-making methodology.

4.2. Business risk management

Business risk management these days is often considered synonymous with the corporate and professional failures of early 2000 (Enron, Arthur Andersen, WorldCom and the like), which ultimately led to the Sarbanes-Oxley ('Sarbox') legislation compelling good corporate governance on the part of US publicly listed companies.

And while, as discussed below, Sarbox obligations are indeed forcing public companies to consider and address the correct maintenance and archiving of their email records, other equally coercive business risk-management challenges are insidiously creeping into the equation at the grass-roots level. And these risks are equally applicable to all enterprises, large or small, public or privately held.
According to the legal concept of vicarious liability, employers are liable for their employees’ activities undertaken during the course of their employment. An employer must take reasonable care to prevent improper or illegal activities from occurring in the workplace. This translates into a need for policies and procedures that are effectively communicated, implemented and monitored. Moreover, there are significant data-management implications that result as regards ‘monitoring’ employee email communications and employee personal data protection (discussed below). There is also a requirement for general email and information-retention policies. Businesses need to retain these records for several reasons:

i. In the event of legal proceedings, they give a company the ability to defend itself properly or prove its own cause of action.

ii. They protect stakeholders in the event of a disaster.

iii. They enable a company to comply with the law under various Acts or Statutory Instruments, such as Freedom of Information laws, Data Privacy laws, Data Protection laws, regulated industry laws and Sarbox.

In the UK and the USA, examples of corporate obligations to be legally compliant as regards email records can be found in the following laws:

**General Liability** – as we have seen, the law makes an employer vicariously liable for the acts of its employees while they act in the scope of their employment. This applies to the act of emailing. The employer must be able to recover any email sent to or from any corporate address, including any remote location.

**Data Protection Act 1998** – a business can charge a maximum of GBP10 (about USD18) for the cost of a request by a ‘Data Subject’ for a copy of all materials, including email, in which they are mentioned. Moreover, this information must be supplied within 40 days or the company faces a fine. Difficulty in complying or the time-consuming nature of the request are not defences. Principle 5, Benchmark 1 refers to the requirement to deal with retrieval requests promptly, and Benchmark 7 expressly suggests that a company’s email system, when purchased, should ensure that ‘the system enables you to retrieve all the information relating to an individual worker without difficulty’.

**Industry-specific Legislation** – while Sarbox applies broadly across all industries, a range of additional regulations are specific to certain industries, including the Health Insurance Portability and Accountability Act (HIPAA), Gramm-Leach-Bliley, SEC Rule 17a-4, NASD 3010, NYSE rules, FDA 21 CFR Part 11 and California SB 1386 amongst many others.

**Misuse of Email** – employers mostly eschew the role of ‘email policeman’ over their corporate email system, so there is inherent risk of misuse by employees. Inappropriate material, bullying, discrimination, corporate espionage and unauthorised disclosure of confidential material all present legal compliance challenges in respect of email and the process of the administration of justice.

**Email Monitoring** – it is generally unlawful under the provisions of the Regulation of Investigatory Powers Act 2000 to monitor employee emails, but there is residuary authority for corporate management to investigate an email-related issue as regards an employee from an email archive.

**Human Rights Act 1998** – makes it unlawful for an employer to randomly open employees’ emails to look for evidence of misuse or employee malpractice, but they can retrieve this information from an email archive store.

**Legal Admissibility & Evidential Weight** – the British Standards of Industry BIP 0008:20004 sets the standards for legal admissibility and evidential weight attached to information stored electronically. These standards must be taken into account when forming an electronic information-management

---

82 Ibid page 17
programme, i.e. an enterprise must be able to prove that an email is what it claims to be and that it has not been tampered with.

Email Policies – the UK Advisory and Conciliation Service Code of Practice on Disciplinary Procedures, Section 1 paragraph 5 urges every organisation to have an Email Use policy.

So legal compliance is the key driver for a risk-management strategy covering the information assets of any enterprise. The experience common to all is reflected in the following:

- Businesses have a duty of care in relation to their information assets.
- For many enterprises, there is non-systematic management and lack of strategic intent as regards email, resulting in a proliferation of personal information silos.
- These silos create information pools over which the enterprise is unable to apply any systematic corporate governance procedures or controls.
- As a result, it is difficult (or impossible) for the organisation to ensure statutory and regulatory compliance in respect of email records.

These risks are becoming ever-more apparent as 'smoking-gun' emails appear every so often in corporate scandals and litigation in business, government and industry.

Email has very quickly become a very rich source of ‘smoking-gun’ evidence, with email playing a crucial role in four of the Top Ten US legal verdicts of 2005.83 Details of the four verdicts follow.

At number #1 was a USD1.45-billion-dollar award against Morgan Stanley. The company repeatedly failed to produce email and other documents demanded by the plaintiff's team, and the plaintiff's attorneys also claimed that documents had been destroyed when they knew back-up data existed.

In the number #3 verdict, Merck, the manufacturers of Vioxx, had to pay USD253.5 million in the first of many trials for damage caused by the popular painkiller. During the trial, the plaintiffs introduced a plethora of company documents and emails to show that Merck scientists had concerns about Vioxx's potential cardiovascular risks as early as 1997, two years before the company began selling the popular painkiller.

The #6 verdict involved an event promoter, Clear Channel, which, according to email evidence submitted to the court, had willfully and maliciously tried to plough under one of its competitors rather than engage in normal business competition with it. The executive emails used in court clearly showed how Clear Channel had tried to put its smaller competitor out of business by threatening stadium and arena managers with total withdrawal of its business if they agreed to give the competitor dates for its events. Smoking-gun ‘internal email’ evidence ultimately cost Clear Channel USD90 million in damages.

The #9 verdict involved an age-discrimination award of USD63 million to the private pilot of Bruce Willis and Demi Moore. Email conversations between a group of flight crew members showed that they had conspired to oust the 63-year-old plaintiff from his position in order to get his job.

It is apparent, therefore, that the growing legal risks to businesses, caused by the prevalence of email, mean that companies must take back control from line management and IT decision-makers. These actors have traditionally focused their attention on the availability, reliability and commercial rationale of their email systems, however they have paid little heed to the likely legal consequences of implementing and operating such systems.

Thankfully, it is very easy for enterprises to regain control by establishing an enterprise-wide information infrastructure that anticipates personal workflow-management and enterprise knowledge-management needs, whilst also achieving legal compliance by adopting and using:

i. Email-archiving silos.

ii. An email charter.

iii. Implemented and monitored email policies.

Email-archiving Silos – these use automated email-archiving software with search and retrieval capabilities. They can be configured to specific retention policies, and thus form an integral part of the enterprise-wide information infrastructure.

In choosing and configuring such software, enterprises should consider the following:

- Will the resulting archiving system prevent individuals from making independent decisions about the retention and disposal of emails created and received in the course of their employment?
- Will employees be able to meddle with archived data or interfere with logs?
- Who watches the watcher? What arrangements will be put in place to ensure that the administrator of the archiving system leaves an audit trail of his or her activities in relation to the silo?
- Will the archiving take place securely in real time (or near to real time)?
- Will the resulting archiving system allow the company to quickly and effectively comply with requests and its duties and obligations under Data Protection legislation and Freedom of Information laws?
- Will the archiving system entail encryption to help the organisation meet its obligations under Data Privacy laws?

An Email Charter – this is a social contract of the organisation, crafted at Executive Board level, that details the use and management of email within the organisation.

The ePolicy Institute guidelines\(^\text{84}\) are a good place to start, but the Email Charter should also include a description of the enterprise-wide information infrastructure, the rationale for the policies and the significance of the resulting workflow-management system for each individual. The policies that result from the Email Charter should cover:

- Acceptable use of email, content, disclaimers and a description of acceptable behaviours.
- A clear description of the company’s policy on email monitoring and the privacy of personal and business emails.
- A statement of the procedures that will be used to enforce the policies and any resulting disciplinary and escalation procedures.
- Arrangements for the segregation and management of content-blocked email, most particularly if disciplinary action is to be taken against an offending employee.

\(^{84}\) www.epolicyinstitute.com: Ibid 48
• The detailed arrangements in place for the retention, storage and archiving, at both the enterprise-wide level (compliance driven) and also the individual level (driven by personal workflow management).

• Control over who has access to people’s mailboxes.

• Email security, detailing arrangements as regards encryption, mobile devices and remote communication, and the precautions that users must take.

**Implemented and Monitored Email Policies** - access to the resulting system should involve a clear training programme taking in every aspect of email management, risk minimisation through compliance and effective workflow processing. Policy should form the mainstay of actual practice and compliance, with the policy being an integral part of the operational modus of the enterprise.

**4.3. Knowledge management**

While business risk management is mitigated through email archiving and policy mechanisms, there is a third pivotal requirement in the development of an information infrastructure driven by a personal workflow methodology. This encompasses the concept of knowledge management, specifically in terms of two distinct areas in the enterprise-wide information infrastructure:

i. Collaborative and shared workspace environments.

ii. Access to the intellectual assets of the organisation.

**Discrete systems should be adopted to ensure that information that has to be shared by work-groups, managed as a generally accessible intellectual asset of the company or disseminated enterprise-wide, is effectively distributed. Email is neither an effective nor a suitable technology for diffusing these records:**

• Intranets should be used for announcements and general information delivery.

• Web-based collaboration forums such as SharePoint should be used for discussions between project teams or communities of interest, and for the sharing of collaborative documents and files.

• Intranet discussion boards should be used to record written debates and deliberations that lead to decisions amongst workgroups.

• Web conferencing is preferable to long email debates.

• Instant messaging should be used for brief exchanges.

Moreover, the use of electronic technologies presents personal workflow-management challenges that are significantly different from those presented by paper technologies. In 2005, researchers reported on a two-year ethnographic study of the personal document-management practices of 28 information workers, involving both paper and electronic documentation. Their results showed clearly that document management is strongly related to task management, and that present digital tools do not properly support the two critical user needs related to task management: (1) documents need to be embedded together with meaningful task-related information, and: (2) documents need to be easily managed and readily accessible as the task is moved forward as the work progresses.

---

While paper supports these two user needs very well, electronic technologies do not. It is easy to search for and associate paper documentation relating to tasks. Existing electronic technologies, on the other hand, do not have the same capability.

Therefore, a simple system should be anticipated to allow enterprises and individuals to dovetail their paper-management needs into the electronic information-handling environment. This would be part of the individual workflow-management system that forms part of an enterprise-wide information infrastructure.

4.4. A change-management problem

It is clear, then, that ‘email-as-problem’ cannot continue indefinitely. Legal, employee effectiveness and corporate productivity rationales dictate that the email tiger must be tamed, and tamed quickly.

Change is notoriously difficult; we are, after all, creatures of habit. After many years of corporate disinterest in how employees manage their emails, many people find it very hard to apply the discipline and undertake the adjustments needed to bring about positive change.

So getting control over emails is a change-management problem. As such, ‘email-as-problem’ dictates that:

- **Management at the highest levels must drive the change, otherwise incumbency, vested interests and resistance to change will defeat the initiative.**
  
  Very many senior executives don’t understand the extent and reach of ‘email-as-problem’. Many refuse to deal with email as a technology and thus have divorced themselves from its reality. Those business leaders who ask their secretary to print out their emails for them and then annotate the print-out or dictate a reply are often unmoved by the argument that a serious issue exists – and so the problem persists.

- **The enterprise must acknowledge that email is both an asset and a potential liability of the business, not merely a communication medium.**
  
  As such, new thinking must prevail and resources must be deployed to ensure that an information infrastructure is created to allow the company to meet its obligations to its stakeholders and under the law.

- **Workers must be encouraged to embrace email change as a wholly positive development.**
  
  Email is a real problem, whichever way a person looks at it. Everyone participating in the email change initiative should be ready to:
  
  i. Acknowledge that there is no way anyone can actually deliver on all the requests made of them via email. There is no shame in not being ‘perfect’ when perfection is completely unachievable.
  
  ii. Understand that less is more. Communicate, don’t lecture, when composing emails.
  
  iii. Recognise that everyone has this problem. No-one ‘loves’ email so don’t feel guilty that this technology has gotten out of hand; it’s hardly your fault. The solution is within you; you are not the cause of the problem.
iv. Change your attitude to email. It is not a panacea; it’s a powerful communication tool – no more and no less. Use it; don’t let it use you.

v. Make the technology work for you. Identify the 10 standard things you consistently request or reply on, and create a signature template to supply the information you need to communicate (thank you’s, responses to FAQs, admin requests etc.).

vi. Ditch, ditch, ditch. Why keep the electronic equivalent of every supermarket receipt, bus ticket, scribbled Post-it note or mildly interesting information flyer about some event you know you’re never going to attend? Re-reading old emails over and over again adds nothing to your ability to turn them into productive output.

vii. Go to your inbox reluctantly. If something is uber-urgent you’ll find out quickly enough when the person calls you. Treat each visit to the inbox as a distraction from your real work, and when you do go there triage all the mail you find, plan and organise the resulting work and then get back to the fun stuff that you’re actually paid to do (no one’s job description begins with 'spend 2-3 hours sending and receiving email').

viii. ‘Always on’ emailers usually ascribe more value to getting an email than actually doing something as a result of receiving it. Recognise email for what it is: almost always an interruption to something much more important that you could be doing. (Weekend Blackberry users take note: Why do you allow your employers to have you work for no pay outside of already extended business hours?)

ix. Recognise that there are only 10 things you can do with an email, and use the triage method to take the next action to make one of those decisions.

x. Realise that most email is ephemeral. It is relevant only for a very short period of time and so can be dispensed with aggressively, either by planning the work, putting the email away or ditching it forever.

xi. Tell people you’ve changed your habits. Ask them to call you more; define when it’s good for you to be contacted by mail; let them know how you’ll handle emails, plan your work and schedule their responses, and tell them how your system works for you (a signature template is a good technique to use here). Set, then change, people’s expectations, and then live your new email workstyle.

xii. Value your time properly. At work, it’s all you’ve got and there’s never enough of it. Recognise all of the time you are losing to email; your health, career and family will all benefit. Email has robbed you of your time; take it back.

Harold Taylor has identified five ‘laws’ or effective guidelines for maximising the use of time. 86

**Parkinson’s Law**: Work expands to fill the time available for its completion (otherwise known as the ‘I’ve got a deadline’ law). Deadlines become a goal to work towards: the closer you get, the more effective with your time you become. Unrealistic deadlines cause stress.

**The Pareto Principle**: Also known as the 80/20 rule, meaning that 80% of your results are achieved from 20% of the things you do. It’s therefore vital to focus your energies (and

86 Laws governing the use of time (http://taylorintime.com/)
time) on the 20% of the work that delivers 80% of the results that progress you towards your goals.

**Law of Diminishing Returns:** The closer you get to finishing a task, the time taken to ‘perfect it’ increases exponentially. The extra value created by doing near-perfect work mostly doesn’t justify the cost of the extra time spent on it. For most work, close enough is good enough.

**Law of Comparative Advantage:** Do only the work that is valued at your worth. Assign, delegate or outsource any task that can be done for less than you earn or desire to earn. Put a value on your time and be guided by that value in deciding whether or not to undertake a given task.

**The Pleasure Principle:** We avoid pain and seek immediate gratification. This explains why we procrastinate over the tough work and prioritise the fun work, even if the 80/20 rule is being broken. Recognise this and plan for it.

So change is the real problem here. Resistance to change manifests itself at every level of an enterprise and should be recognised for what it is. It’s human nature in action. However, the challenge of change can be squarely addressed and overcome with express acknowledgement from the very top, the correct change management initiatives and the tools to overcome reluctance and incumbency.
5. A Model Information Infrastructure

Taking into account the personal workflow-management, business-risk and knowledge-management dynamics in play for the modern enterprise, we have devised a model information infrastructure, driven by a personal workflow management system, that tames the email tiger, provides a complete legal compliance solution, allows knowledge-sharing across an organisation and delivers profoundly improved worker effectiveness and productivity.

5.1. Diagram

Appendix A illustrates the information infrastructure that results from a thorough understanding of how an enterprise ought to address personal workflow-management, business-risk and knowledge-management dynamics. Forming a critical part of the information infrastructure, an effective personal workflow-management system drives behavioural change as individual workers make decisions about their email using the Orla 4D decision-making process.

At the point of interface between people and the email technology they’re forced to use (i.e. Microsoft Outlook), the Orla 4D methodology is the fountainhead of profound change in the way people perceive and manage information within the enterprise-wide information infrastructure.

5.2. Discussion

Email Silos

To address the business risks arising from email, the enterprise should create a silo to trap a copy of every email arriving into (4.2A) and going out from (4.2B) the organisation.

This store of email can then be indexed and archived for compliance purposes.

This means that any emails that arrive in people’s inboxes are there for one reason only: to allow them to progress their work. People no longer need to be concerned about keeping emails ‘just in case’, and they’ll feel comfortable about deleting the emails they’ll truly have no need to reference again but that they would previously have felt obliged to retain in order to cover themselves in case anything went wrong. So there will be fewer demands on network storage capacity and less information overall for the worker to manage, thus delivering in one easy stroke improvements to both network performance and personal productivity.

Orla 4D Decision-Making

When email is considered as merely the mechanism by which your work reaches you (being just the most recent in a chain of communication phenomena stretching back to Morse code), with each email merely containing the information you need to progress your work, it is easy to organise that information to make it context-relevant.

To access these capabilities you need a decision catalyst supported by technology that allows you to intuitively organise and prioritise the work that results from making these decisions. We chose the 4D decision-making methodology (4.2C): Ditch (meaning delete), Deal (as in deal with it now, super-urgent, prioritise before all else), Delegate (give the work to someone else to do) and Decide (file the mail, plan the work, send to (keep for) reference or otherwise organise the work that results from the email).
When making an Orla 4D decision about each email, you discover:

- **Work that needs actioning immediately (4.2D)** - requiring a response that leads you to prioritise this above all else, on the basis that it will take you less than two minutes to complete.

  If, while undertaking this immediate action, you need to access electronic resources that are communally stored or are available from a shared workspace (4.2E), you can access these shared knowledge resources, ideally via hyperlink. If the counter party is outside your workgroup, then a copy of a file, rather than a hyperlink to an internal resource, can be attached. As the email is sent out, a copy is trapped in the silo for business risk-management purposes.

- **Work that needs to be planned or scheduled (4.2F)** – on either a stand-alone or a workgroup basis. This work takes the form of appointments and tasks, together with work that need to be watched out for, monitored or otherwise held as pending until the contingent action of another party has been completed (i.e. it is work that ends up on a ‘watch list’).

  Similarly, when you’re planning this work, you can prepare yourself for the moment when you actually have to do the work. This involves collecting together all the electronic resources and other information you’ll need in order to undertake the task or appointment effectively and efficiently, when the time comes to undertake it. This involves calling for and hyperlinking to the relevant documents and other files that are shared in the collaborative workspace.

- **Information that, now that you have received it, qualifies work activity that you have previously scheduled or planned (4.2G)** - requiring it to be stored together with other salient information to which it relates, or categorised and referenced for use on a future occasion when you progress other work not strictly related to anything you have planned at this time.

  For example, imagine you receive an email relating to an appointment that you’ve previously scheduled. When the time for the appointment arrives, you’ll need to refer to the information in that email. So the logical thing to do is to take that email out of your inbox and associate it together with your calendar entry or agenda for the appointment, which will also contain all the other information and resources you’ll require for that appointment. This is because, when you originally scheduled the appointment, you planned for it by associating all the other resources and information you’d be needing, so that you could handle the appointment as effectively and productively as possible. In the process of filing the email with the appointment to which it relates, you might realise that you need further resources to fully update yourself for the meeting, and you can link these resources to the appointment, organising as you go.

  The point that’s emerging from the above is that you’re consciously planning, organising and arranging as you’re thinking about the work. This is the most effective planning capability available and the most productive way to organise your work.

- **Information contained in emails and attachments that don’t need actioning now, but that may be needed for future use or for reference in the short term (4.2H)** - these can be put away safely in a folder called ‘Done’ (in the case of email) or saved in a working folder (in the case of other attachments). Subsequently, as this work moves across your workflow-management system, these emails and other files can be moved out of your short-term holding area to your long-term holding areas, taking in email sub folders (if desired), personal archives and collaborative and shared workspace areas (including document-management systems) (4.2I).

- **Emails and their attachments that can safely be deleted (4.2J)** – if you’re sure there will be no further need for you to refer to the content again in the future.

- **Information contained in emails and attachments that, upon review, require no action on your part (4.2K)** - and can be safely stored away in collaborative and shared workspace areas.
Sending Email

- When composing an email (4.2L), you will no doubt need to access electronic resources that are communally stored or available from a shared workspace. You can access these resources, ideally via hyperlink. If the counter party is outside your workgroup, then you can attach a copy of a file rather than a hyperlink to an internal resource. As the email is sent out, a copy is trapped in the silo for business risk-management purposes.

- As email in your sent items ends up as email in someone else’s inbox, any email you send may require you to take an organising action (e.g., place a copy on your list of items to be watched, or schedule an appointment or a piece of work). It is easy to do this with Orla by 4D-ing your sent items (4.2M) in exactly the same way as you would your inbox.

  Interestingly, when 4D-triaged, 80% of sent items are ditched, 10% are filed away, 5% are placed on a watch list and 5% are denoted as pieces of work to be scheduled.

Work Not Originating From Email

- When using Orla as a best-practice information-handling system, 4D-ing your email and managing the workflow resulting from the emails you receive, it’s crucial to recognise that work not originating from emails needs to be recorded alongside the work that does originate from email. So you need a simple method of inputting such work items in order to store all the recorded workload resulting from all of this activity in one place.

  This requires a single interface option (4.2N) that allows you to readily input these items into your personal workflow-management system. It should also, as with email, allow you to access electronic resources that are communally stored or available from a shared workspace. You need to be able to access these shared resources, ideally via hyperlink.

  If the counter party is outside your workgroup, you can attach a copy of a file rather than a hyperlink to an internal resource.
6. Personal Workflow Management

6.1. **Outlook is the starting point for a solution**

The reason corporate information infrastructures have consistently remained fragmented is that there has been no cohesive personal workflow-management system interface for each user who is expected to operate within those infrastructures.

This situation has come about for a very simple reason: the software we use every day has been designed with an engineer's eye, not a user's.

This is all the more surprising since the skills needed to anticipate, design and distribute a personal workflow-management system have been around for a very long time.

It is just over 20 years ago that desktop computing can be said to have gone mainstream in business. Desktop computing undoubtedly led to significantly increased levels of productivity in the workplace. It is an easy argument to attribute the massive rise in the relative wealth of developed economies over this time largely to the computers we use. Since we no longer needed to process discrete work activities manually, the computer afforded us the power of word processing, spreadsheets, desktop publishing and relatively quick recall of information when it was required.

Before the early 1990s, the latent capability of all of this powerful computing technology to create limitless information was checked by the relative difficulty of exchanging it freely. Who can remember the days when a document would be saved on a floppy disk and posted to a counter party across town for their review and action? With the advent of the modern Internet, all of that changed. Email programmes were rushed to market with no thought as to the implications of the information-management challenge that lay ahead.

The Inbox-Subfolder Paradigm was adopted in earnest (drawing down from the systems prevailing from paper file management) and by 1996, we were officially suffering from 'email overload'.

So the problem exists, and must be solved. There is only one place to locate the solution: it is with Microsoft Outlook, the most prevalent email communication software in use today.

Outlook, despite its inherent lack of an intuitive personal workflow-management system interface, contains all of the requisite software components to immediately and definitively tame the email tiger. Outlook has the potential to become the 'operating system' of personal workflow management that Microsoft undoubtedly intended when they developed the software, but which they unfortunately got so badly wrong by failing to include a 4D decision-making capability for its users.

6.2. **The problem with Outlook**

Outlook is the most widely deployed potential personal workflow-management system interface in the world, with 400 million users globally. Whilst the software contains the essential elements required of a personal workflow-management system (tasks, appointments, notes, contact records, email, workgroup capabilities etc.) its design emphasises discrete functionality as opposed to a cohesive system for managing the typical workload that occurs in a modern workplace.

In short, Outlook 'out of the box' is an ineffective personal workflow-management interface.

---

87 Ibid page 11
88 Ibid 5
Sadly, the same remains true even of Outlook 2007. The changes in the latest version focus on software usability, not system effectiveness.

6.3. Using Outlook in 400 million different ways

Consequently, each individual is left to his or her own devices to create a system from all this powerful technology. This has proven a bridge too far for the overwhelming majority of Outlook users. Consider:

- The vast majority of people using Outlook today do not have the personal wherewithal to design an effective workflow-management system out of the software they use everyday. The knowledge, whilst simple for those who are technically minded, is beyond the grasp of most users.

- Typical consumers of business software to do not have the skills, time, inclination or need to learn anything more than the very basics of the software. They simply want to perform their work at the most practical level. Contrary to what the people at Microsoft would like to believe, the vast majority of Outlook users are using it only to send, receive and store email.
7. Redesigning Outlook

7.1. The challenge

In approaching this challenge, we understood that the user experience had to look, feel and seem familiar, whilst the personal workflow-management system itself had to be driven by intuition and very simple logic, and had to be based on a comprehensive yet easy-to-grasp methodology.

Researchers from Microsoft and the University of Calgary asked their research subjects what they wanted to see in their email software that would help them to make decisions about their email. The respondents said they wanted mechanisms to keep important things visible, tools to find things easily, and task-management features. This 2005 paper acknowledged that existing email software had significant room for improvement.

7.2. Ditch-Deal-Delegate-Decide

A system was needed to allow Outlook users to ‘triage’ their email after receiving it. For Orla, we designed a 4D decision-making methodology that draws upon the intrinsic capabilities of the software. It also adds significant extra functionality to achieve the essential organising outcomes we identified as being critical to achieving maximum effectiveness and productivity with the minimum of training.

7.3. Cohesive, holistic, complete

In designing the Orla personal workflow-management system interface for Outlook, taking on board the paradigmatic information infrastructure within which it would sit (as discussed above), we determined that:

- The menu options needed to accord with the desired next action to be taken as a result of any email received, e.g. 'Schedule an Appointment' - if an email dictates that you need to make an entry into your calendar, the system needs to relocate that email automatically to the calendar item as a single decision-making transaction (see Figure 1, Orla Inbox 4D Decision-Making Tool).

---

89 Neustadaedter, Brush & Smith (2005). ACM 1-59593-002-7/05/0004 “Beyond ‘From’ and ‘Received’: Exploring the Dynamics of Email Triage
The system had to enable you to decide what to do with an originating email, i.e. delete it, keep it for short-term reference as part of progressing your work forward (as opposed to long-term filing, which occurs as part of systemic archiving from out of the folder used for short-term filing), or leave it where it is so that you can take another action.

We chose the options of Ditch, Done or Do Something Else, which are automatically invoked after completing a workflow-planning exercise when first reading and handling email (see Figure 2, Orla Email Decision-Making Tool – Ditch, Done or Do Something Else).
• Work items being scheduled into the personal workflow-management system had to be automatically labelled at the point of planning the work. That way, users can easily understand ‘at-a-glance’ work that they have previously planned and recorded in the system. This labelling capability had to be user-customisable to reflect the nature of each user’s personal workload (see Figure 3, Orla Activity-Labelling Capability for Scheduled Work).
• The primary view on Outlook needed to shift from the inbox to the Calendar view, supported by high-, normal- and low-priority task items all on one page, with the option to view the total resulting planned workload over time, with daily, weekly and monthly views (see Figure 4, the Orla My Work View).

• Work not resulting from email sent or received also had to be entered into the personal workflow-management system using an intuitive, single-menu structure. This would allow for the creation of a definitively stated workload, with all work recorded, regardless of how it entered the personal workflow-management system (see Figure 4, Orla drop-down New Work menu).

• The Outlook folders that form part of the personal workflow-management system needed to be readily accessible from within the default user view and separated from the clutter of other folders that merely support the system (see Figure 4, Orla Shortcuts grouping).
Sent items needed to be manageable in the same way as inbox items (see Figure 5, Orla Organise Sent Items).

A personal project-planning and project-management capability had to be included, as this was distinctly lacking from Outlook ‘out-of-the-box’.

The 4D logic applicable to the management of email also had to apply to the management of any other Outlook item so that the intuition running throughout the menu structures as regards email would carry across the system as a whole.

The system necessarily had to recognise a user’s need to efficiently track and monitor work activities that are personal to that user, and also activities planned and undertaken in relation to other people. It also had to enable the user to track and monitor personal projects. (This capability remains conspicuously missing from Outlook, even Outlook 2007, some 10 years and four design iterations later.)
8. The Orla Solution

Implementing a model information infrastructure in any enterprise necessarily begins with personal workflow management. As we have seen, this calls for an intuitive decision-making tool at the point of interface between email software and its user, along with inherent programme capabilities the like of which can presently only be found inside Microsoft Outlook.

The design of the personal workflow-management system must reflect the workload-organising needs of its users. Artificial or ill-conceived ways of working cannot be imposed. A personal workflow-management system needs to be clearly understood and appreciated by those who use it. Human logic drives software usability, and technology must be seen to deliver meaningful value.

Email technology does in fact deliver huge value – but only as a communication medium. For Microsoft Outlook to deliver complete value, on the other hand, it needs to begin to perform effectively as a complete workload-management technology. The Orla 4D decision-making tool drives that capability, empowering people to make the best possible use of the latent power of Outlook. With Orla in play, the challenge is change: how to persuade people to stop working in the Inbox-Subfolder Paradigm.

This calls for a ‘transition model’. Orla has anticipated and implemented an effective transition model that:

- Delivers immediate practical value, replacing a cluttered inbox with a daily, weekly and monthly overview of all scheduled work.
- Demonstrates very quickly that the intellectual engagement required to overcome incumbency to the Inbox-Subfolder Paradigm is neither taxing nor burdensome.
- proves objectively (to those who pay for it and those who use it) that worker performance and organisational productivity are indeed improving.
- Illustrates how personal workflow best practice squarely addresses the business-risk and knowledge-management challenges facing an enterprise, and how the transition to a new way of managing email will result in a long-sought-after information-management transformation.

The final part of this Paper discusses the Orla transition model.

8.1. An empty inbox

An inbox full of emails, read and unread, is psychologically impactful and stressful. An empty inbox, however, allows the person to feel that they are in control, that work is not stacking up endlessly behind them, and that there are just not as many ‘balls in the air’. Orla’s 4D decision-making methodology promotes the notion that, by dealing with every email received and making a decision in relation to it, the inbox can be emptied. Thus, the inbox can finally play the role for which it was originally intended (mirroring the paper in-tray), namely as merely the first port of call for a new piece of work when it ends up on your desk.

It is worth noting that these days, very many people opt to keep ALL their emails in their inbox. They do this because they want to feel confident in knowing where any given email is located, so that they know where to begin their search if they need to find it again in the future.
With the Orla 4D decision-making methodology, it’s easy to make one of the 10 decisions relating to email, thereby organising the work that the email contains and gaining control over your workload.

Through a new commitment to 4D-ing each email you find in your inbox every time you go there (consciously electing to treat your inbox as merely your electronic in-tray and not your primary electronic habitat), this calls for a new regime of visiting your inbox only a limited number of times each day. Unless the nature of your work calls for you to effectively live in your inbox, it is reasonable to visit it only four or five times a day, 4D-ing your email and emptying your inbox of email each time. This could work according to the following schedule:

- First thing in the morning when you arrive at work.
- Just before lunch.
- Mid afternoon.
- Just before you finish work for the day.

Once you’ve refocused your primary electronic habitat from your inbox, Orla changes the primary user view from the Outlook Inbox to the Outlook Calendar/Taskpad view, showing work detailed as ‘fixed-in-time’ and ‘flexible’.

Visit this [link](#) to watch how the Orla 4D decision-making methodology switches the focus from the inbox to the Calendar/Taskpad view.

- Work that is ‘fixed-in-time’ is recorded on your Outlook Calendar. This is the type of work that denotes that you must be in a particular place at a particular time, doing particular things, with particular people. This is fixed, and it is around this type of work that you plan your ‘flexible’ work.

- Flexible work is the work activity that you undertake ‘in the gaps’ of time when you’re not doing your fixed work. Flexible work is recorded as tasks on your Outlook Taskpad. When you analyse your flexible work you discover that there are three types of such work. You have:
  
  i. Work that must be completed today (‘before your head touches the pillow’), at all costs. This is denoted as High Priority and thus appears at the top of your Outlook Taskpad.

  ii. Work that has previously been scheduled to be undertaken on this day or is otherwise a routine fixed work activity that you do every day or is a recurring task on set days. This is denoted as Normal Priority.

  iii. Work that you have no need to action yourself at this time, but that you merely need to keep an eye out for. This can be work that's due back to you from colleagues, work activity of others upon which your own work is contingent, or any other ‘live’ work activity that you wish to monitor or have no requirement to act on at this time but that you don't want to 'slip off your radar screen'. This is Low Priority activity and, as such, is recorded at the bottom of your Outlook Taskpad.

When breaking down your work activities in this fashion and planning using this formula, it is readily apparent that it is what you do each day that, ultimately, determines whether you fail or succeed in the end. Thus, by setting the Outlook Calendar/Taskpad one-day view as the primary view on Outlook, it is now easy for you to understand all the work activities that you need to do each day. However, if you wish to get a complete overview of all the work you have planned on a weekly or even monthly basis, this is readily available simply by clicking to your weekly and monthly Outlook Calendar/Taskpad views.
Using this methodology, you know what work you have to do at the start of each day and can easily refocus, reschedule and reprioritise during the day as and when (as is quite often the case) something crops up that forces you to deviate from your plan for the day. And with all your work electronically organised in this manner, making new arrangements to accommodate these new priorities is as simple as changing dates and priorities on the work that has to be re-arranged. This takes only seconds to accomplish, giving you complete control over your total workload irrespective of what your day throws at you.

This capability not only delivers the satisfaction of an empty inbox, but also gives you a sense of calm control over your work, which alleviates stress and empowers you to get on with what your employer is actually paying you to do. This leads to improved work outcomes, greater job satisfaction and an improved all-round sense of well-being.

8.2. Learning

As we have seen at the outset of this paper, people are very busy. The Inbox-Subfolder Paradigm has many workers locked in a hamster-wheel-like experience of never seeming to be able to catch up, pause or take a breath.

Given this environment, it is difficult to change the email-handling and workload-management practices of such ‘busy’ people.

We have therefore designed the Orla transition model to reflect the key realities surrounding change in the modern workplace. These are:

- Change must commence with the single biggest problem – the inbox.
- Learning must occur primarily on each worker’s own personal workload.
- Learning must be staged, providing ‘quick wins’, and be low-impact.
- Crucially, learning must involve not merely the provision of training about how to use Orla as a piece of software, but must also occur in the context of a change in the organisation’s culture.

Orla Learning is broken down into two parts: the compulsory ‘Essentials’ and the optional ‘Advanced’ programmes.

Orla Essentials

Orla Essentials is designed to allow each worker to ‘Organise your email, work more productively’.

By focusing on email first and introducing the 4D decision-making methodology, the modern workload, reflected in a sizeable body of emails in an inbox, can be relatively quickly sorted and organised according to date and priority, with the resulting work being recorded on the Outlook Calendar/Taskpad as detailed above.

Equally crucial, however, is the change that occurs in the psychology of the worker. Relieved of the highly unsatisfactory one-dimensional nature of the Inbox-Subfolder Paradigm, workers begin to understand how effective workload planning and workflow management is actually very easy to accomplish once their compass has been set in the direction of 4D-ing their email. This decision-making capability carries across into other aspects of workflow management, and the productivity outcomes become exponential once users undertake the optional Orla Advanced Learning programmes.
The Orla Essentials programme is broken down into a number of stages:

- **The Orla Introductory Presentation**

  This is a one-hour group session in which workers are introduced to the three key characteristics of an organised workload. These are:

  i. Identifying and setting a date or time to start a piece of work.
  ii. Gathering the resources required to work effectively on that piece of work, and keeping those resources together all in one place.
  iii. Using a comprehensive list of fixed and flexible work that allows correct prioritisation and an understanding of ‘total work’.

  The programme then introduces the Orla 4D decision-making methodology, and explains how, in the context of Outlook, these three key characteristics are achieved.

- **The Orla Personal Workshop**

  This is a one-hour 1-on-1 training session undertaken on the worker’s own personal workload, at his/her own workstation, on his/her own emails. The focus of this Orla Learning session is to deliver the three key characteristics of an organised workload by using the 4D decision-making methodology in a meaningful and practical, as opposed to a conceptual, context. A worker’s own workload is the most effective learning environment.

  Here, the worker learns how to manipulate the Orla Interface to bring about the change to an organised workload, adopting the three key characteristics in the process. The Orla software has been designed to intuitively achieve this.

  Moreover, this learning occurs whilst a worker is working on actual, real-world tasks, so the cost of learning is low.

  **The total time that a worker spends away from his/her desk during the Orla Essentials programme is just one hour – while they attend the Introductory Presentation.**

- **Ongoing Clinics**

  The Orla Essentials programme is a total 14-day ‘Learning Experience’. The majority of the learning takes place on Day 1, with the Introductory Presentation and the Personal Workshop. However, on Day 2 and Day 8, the worker is revisited at his/her workstation for a 20-minute ‘Clinic’.

  These clinics are timed carefully to anticipate the typical kinds of challenges faced by workers making the transition into a new personal workflow-management methodology, and provide the necessary assistance at the time they’re most likely to need it. This model also allows the worker to feel confident that 1-on-1 help is at hand.

- **Learning Group Support**

  Of the workers undergoing the Orla Essentials programme, one worker will be identified as the Co-ordinator for the group, and will have access to ‘special assistance’. This worker, who is on hand throughout the 14-day Orla Essentials programme, is tasked with assisting his/her colleagues and acting as the co-ordinator for the group. He/she will act as a proxy trainer and co-ordinate any specific challenges that any of the individuals in the group are facing, so that specific remedial help and assistance can be provided if necessary.

  This is designed to help deal with the challenge of change.
Throughout the transition to the Orla personal workflow-management methodology, surveys of each worker are conducted and a record of the learning experience is kept (these are discussed below). At the end of the Orla Essentials programme, a group report is prepared, detailing the change that has resulted from people’s adoption of the Orla 4D-decision-making methodology. This provides an objective measure of the intellectual and financial return on investment for each worker, augmenting the subjective experience that each worker derives from the change initiative.

**Once they complete the Orla Essentials programme, workers are empowered to use Outlook as a personal workflow-management methodology, and they have developed the framework of ‘an organised mind’.

If they wish, workers can build on this foundation by engaging in Orla Advanced Learning programmes, according to the following model:

---

**Orla Advanced**

The Orla Advanced programmes are designed to achieve the following outcomes:

* **Orla Focus**

Get more out of your day, prioritise effectively, organise your workload for maximum efficiency

- Use the Task Pad to establish and manage daily priorities.
- Group similar tasks to maximise efficiency.
- Balance urgent and important work.
- Focus on the most productive activities.

* **Orla Planning**

Master the three keys to effective project management: List, Schedule, Action

- Create dynamic, comprehensive project plans for your complex work.
- Plan ahead to reduce stress and accomplish more.
- Convert plans into action.
- Monitor your progress at a glance.

* Orla Upkeep

*Streamline your system, protect your data*

- Keep Orla running smoothly.
- Discern what to keep and what to Ditch.
- Establish routines for long-term record-keeping.
- Safeguard important data, files and information.

* Orla Paper

*Extend the Orla Workstyle: declutter your desktop, organise your paperwork*

- Establish and maintain a desktop paper-management system.
- Apply the 4D method to your paperwork.
- Collect, store and retrieve paper resources to progress your work.
- Streamline your workspace for effective workflow.

* Orla Team

*Delegate work, plan meetings, collaborate and communicate*

- Assign and manage work delegated to others.
- Schedule meetings, prepare resources and monitor outcomes.
- Plan and collaborate on shared projects.
- Update and communicate workgroup project status.

* Orla Connect

*Keep track of the people you know and your communications with them*

- Maintain detailed records on clients, colleagues and friends.
- Quickly capture the highlights of telephone calls and meetings.
- Create an automatic history of all communication with a given individual.
- Link all work that’s related to a given person: tasks, appointments, emails and more.

All of these programmes are designed to be low-impact, offering maximum efficiency. All programmes (with the exception of ‘Paper’) involve a one-hour group session supported by a 30-minute 1-on-1 Personal Workshop. ‘Paper’ involves a one-hour group session and a one-hour Personal Workshop.

**Arguably, the most important element of Orla Learning is the transfer of knowledge.**

With this in mind, Orla has developed the entire range of Orla Learning programmes, together with associated performance-measurement methodologies, with a view to this know-how being transferred into an enterprise, lock, stock and barrel. We call this ‘Orla Skills Transfer’.

Orla Skills Transfer is designed to allow enterprises with the necessary in-house resources to run the Orla Learning programmes themselves. By licensing our programmes for use in their own enterprise, Orla Skills Transfer promises users:
- Customisation of learning content to meet the specific goals of the enterprise.
- Control over the pace of the rollout of Orla enterprise-wide.
- Significantly lower costs of rollout and ongoing worker training costs.

8.3. Measuring change

The Orla survey methodology involves questionnaires that cover workers’ own definitions of effectiveness. The aim is to understand some of the more subjective measures that people use to gauge their own performance in the key areas of efficiency and effectiveness.

To ensure the statistical integrity of this measurement exercise, qualitative research was undertaken, with two intentionally broad objectives:

- What do office workers think about their efficiency and effectiveness? What constitutes being efficient / effective, and what tells workers that they have been efficient / effective?
- How do Outlook and email impact on workers’ efficiency and effectiveness, and the demand for their time? Put another way: If a product were to make their email life easier, how would they know it had worked?

Whilst the aim of the research was to develop questions that would help us to measure the impact of Orla, our approach was to analyse people’s behaviour, thoughts and feelings rather than to question respondents more directly (since their post-rationalised answers are rarely accurate).

‘Efficiency’ and ‘effectiveness’ are defined as follows:

- Efficiency = the way of working.
- Effectiveness = the results of working.

Face-to-face in-depth interviews were conducted with people who worked in the offices of large or medium-sized organisations. All were users of email and worked in environments where email communication was frequent. The sample included a cross-section of ages (from 23 to 50), and both sexes were represented. By necessity, all interviewees were based in the South-east of England.

In addition, the behaviour and thoughts of people were solicited by email (again using very open questions) to explore the extent to which the attitudes identified in the in-depth interviews were prevalent more widely. These surveys included respondents in the UK, the US and Canada.

Not surprisingly, since the computer, the Internet, Outlook and even many corporations are global entities, no significant differences across regions were found. Consequently, whilst cultural differences in communication undoubtedly exist between countries (as they do between organisations), the results are believed to be applicable in all English-speaking countries.

A number of themes emerged consistently in the research:

- Perceptions of efficiency fell into three categories:
  i. Time-related: working quickly; being able to prioritise work.
  ii. Emotional: feeling good about work; feeling motivated and appreciated; feeling energised; feeling in control; feeling a sense of accomplishment; sleeping better.
Extrinsic: keeping others happy; meeting deadlines; achieving objectives.

An ‘efficient day’ almost always involves a visual indicator of work that has been completed: either an empty inbox or a completed task list (the latter being considered more satisfying, since the inbox will refill outside of their control).

- Perceptions of effectiveness also fell into three categories:
  
  1. Time-related: spending longer at work; working through lunch.
  2. Mindset: being proactive rather than purely reactive; making decisions more quickly; staying focused on a single task without being distracted; anticipating and avoiding problems.
  3. Focus: considering broader corporate issues, not just managing the task.

Most people felt that email controls their working day (with work and social emails having a similar impact) – it is distracting and demanding.

For most people, being in control of emails was synonymous with good time-management generally. When offered a ‘magic wish’ for email, a frequent request was that emails would organise themselves.

People also frequently retained emails for the purpose of covering their own back.

Some respondents reported that there was an expectation within their organisations that emails would be met with an almost instant response, and that it was annoying when this did not occur. Typically, these people made no use of priority flags on the emails they sent.

Based on the lessons we learned from this research, we devised the Orla Survey System, as follows:

- Day 1 Survey Before Orla Essentials Learning, taking in:
  
  1. Efficiency
  2. Email Volume
  3. Frequency
  4. Learning Development

- Day 1 Survey Immediately After Orla Essentials Learning, taking in:
  
  1. Feedback on Learning
  2. Feedback on Orla
  3. Learning More
  4. Worker Comments

- Learning Folio, taking in the 14-day Orla Essentials Learning Experience:
  
  1. The extent to which the three key organised workload characteristics were covered
  2. The extent to which the 4D decision-making methodology has been mastered
  3. Learning time engaged
  4. Change considerations generally
  5. Orla change considerations specifically
  6. Worker Comments
  7. Orla Advanced programmes favoured

- Day 15 Survey After Orla Essential Learning, taking in:
More concise surveys of users’ effectiveness and efficiency are also undertaken before and after each Orla Advanced Learning Programme.

The entry point for any enterprise considering adopting Orla as a personal workflow-management methodology is to engage in a low-cost Orla Feasibility Study.

The Orla Feasibility Study involves a 16-, 32- or 64-person Orla Assessment Group that undergoes the entire Orla Essentials programme, using a team of productivity professionals provided as part of the Orla Outsource programme (as opposed to the Orla Skills Transfer model). This one-month exercise allows for a complete assessment of Orla and how it might fit within an enterprise.

An Orla Feasibility Study involves:

- A thorough assessment of existing workflow-management systems, Outlook training methodologies, incumbent technologies and productivity-improvement objectives.

- An Orla Essentials Introductory Presentation (1 hour) to the Orla Assessment Group.

- A 1-on-1 Orla Essentials Personal Workshop (1 hour 40 minutes) for each member of the Orla Assessment Group, plus on-site clinics for the whole group, all spread across the 14-day learning experience.

- Valuable data on the effectiveness of existing workflow-management practices; measurement of the increased effectiveness and productivity resulting from Orla, and a detailed report about the Orla Feasibility Study.

- Ongoing help and assistance via on-site visits by an Orla Project Manager, plus online movies and tutorials that the members of the Orla Assessment Group can watch whenever it suits them.

The results from the Feasibility Study provide all the information an enterprise’s managers need in order to make an informed decision about Orla, how it can be implemented throughout the organisation, how it will help people work more effectively and productively, and – here’s the bottom line – how it will help the company make more money and increase its value.

8.4. Results

The results that people experience after the Orla Essentials programme are universal, and can be summarised as follows:

- Adoption

50% of people embrace Orla. These workers agree that the non-intuitive design of Outlook has caused them problems, and they’re eager to build on the Orla Essentials programme.
30% of people inadvertently resist Orla but are open to persuasion through the passage of time and exposure to the Orla Advanced programmes. These workers need greater exposure to the value that Orla represents, and that can’t be thoroughly demonstrated during the mere 2 hours and 40 minutes of the Orla Essentials learning programme.

10% of people overtly resist Orla for good reasons. These people are those who have already established a truly effective personal workflow-management methodology for themselves and see no value in changing the way they work. They are quite often the ‘power’ Outlook users, people who are intrinsically well-organised or workers who deal with only a very low volume of email.

10% of people overtly resist Orla for poor reasons. These are the folks who simply refuse to move their cheese. These are quite often the ones who express significant disaffection with the change initiative and who are heard the loudest.

- Performance Improvement

Time is the most objective measurement of performance improvement (see ‘Value’ below), but many other measures of effectiveness and efficiency improvement are also reported. Generally, these include a statistically significant:

  i. Reduction in the number of emails in the inbox.
  ii. Improvement in overall personal productivity.
  iii. Improvement in the pressure of time and workplace stress.
  iv. Mastery of the 4D decision-making methodology and the three key workload organisational concepts.
  v. Confidence in the Orla system.

- Satisfaction

A statistically significant proportion of workers report that if they were to lose the Orla Interface from their copy of Outlook for any reason, they would definitely want to have it reinstalled.

Orla has the effect of allowing workers to appreciate the ineffectiveness of the Inbox-Subfolder Paradigm. Through the use of an intuitive 4D decision-making process and the Outlook Calendar/Taskpad view, a much better workflow-management methodology is revealed, one that appeals to the sense of a ‘smarter’ way of working.

The majority of workers report that they wish they’d had Orla for as long as they had email.

- Value

Orla results reveal that a statistically significant proportion of workers:

  i. Agree that Orla is definitely a worthwhile investment on the part of their employer.
  ii. Would have no hesitation in recommending Orla to their colleagues and friends.
  iii. Are time-improved by a minimum of 30 minutes each day.
Whilst the Orla Essentials programme delivers an average minimum time-effectiveness improvement per worker of 30 minutes per day, after three Orla Advanced Learning programmes have been undertaken, the average minimum time-effectiveness improvement per worker is 120 minutes per day.

On the basis of time improvements alone, the average minimum financial return on investment for each worker undergoing the Orla Essentials programme is at least 250% per day.90

<table>
<thead>
<tr>
<th>Orla Learning</th>
<th>Total Learning Time</th>
<th>Minimum Daily Time Improvement Reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orla Essentials</td>
<td>2 hours &amp; 40 minutes</td>
<td>30 minutes</td>
</tr>
<tr>
<td>Orla Advanced (3 programmes, including ‘Paper’)</td>
<td>6 hours &amp; 30 minutes</td>
<td>120 minutes</td>
</tr>
</tbody>
</table>

Orla Performance Data

8.5. **The big picture**

The process of 4D-ing your email opens the door on the wider significance of how a best-practice personal workflow-management methodology drives the solution to the very significant information infrastructure challenges facing the modern enterprise. Business risk and knowledge management dynamics, through the adoption of email silo-ing and collaborative workspaces and intellectual asset warehouses, now become context-relevant when seen as part of an overall personal workflow-management methodology. Orla drives this awareness at the individual worker level, allowing each piece to fall into place, delivering value through ease of adoption, improved time effectiveness and overall job satisfaction.

**The Orla 4D decision-making process is the harbinger of a model information infrastructure.**

Workers can begin to understand how all three pieces fit together (risk to business, knowledge management and personal workflow-management methodology) and why personal information silos resulting from the Inbox-Subfolder Paradigm are not a good idea. Workplace communication is improved as the dynamics of the enterprise begin to positively shift as the possibilities inherent in logical, easy-to-use, intuitive information and workflow-management systems reveal themselves. People begin to feel good about their work again.

---

90 Assuming each worker’s hourly time cost is at maximum USD10 per hour. In this model, 30 minutes of time improvement is valued at USD5 against a Year 1 Orla cost of USD2 per day per user. After the costs of the Orla Essentials programme have been amortised at the end of Year 1, the daily return on investment per worker according to this model is 400% in year 2 going forward. Whichever financial model is applied, the bottom line is that Orla provides a tangible, measured and fully justified RoI that is both significant and justified. The effectiveness and efficiency metrics that are gathered as part of the Orla transition model provide a wealth of data upon which an enterprise can make informed decisions about the productivity of its workforce.
Conclusion

In the final analysis, the need to tame the email tiger boils down to a desire to increase the value of an enterprise. Value drivers such as improved worker productivity and effectiveness, employee satisfaction, knowledge management and a mitigation of legal risk all ultimately impact on the bottom line.

In the case of email software designs, technology has over-promised and under-delivered. The interface between the user and the technology is where ‘email-as-problem’ is solved, with the ‘decision crunch’ directing how the balance of the information infrastructure is designed and configured. The Orla 4D decision-making methodology initiates and then guides this process.

Until now, such a decision-making capability has been conspicuously absent from the Outlook / Notes / GroupWise trio of software clients universally deployed by modern enterprises. These softwares, it is submitted, were designed from an engineering-centric perspective as opposed to the standpoint of the workflow-management needs of the average worker.

In his seminal book The Trouble With Computers, Thomas Landauer argued that the billions of dollars that US companies have invested in information technology systems have yielded only very modest results due to the design flaws caused by the gap in the mentality of software engineers and the intuition of the normal person who is expected to use their products. An example of this can be found in the Alt-F4 command as a ‘natural’ way for someone to turn off their computer programme.

In the 12 years since Landauer’s book was published, email has become the primary communication genre and the problem continues.

In a desperate bid to try to keep on top of this growing problem, managers, who have traditionally found it difficult to assess ‘mind tools’ such as software and information-management products, have relied almost universally on vendor promises rather than on an objective assessment of utility.

Clifford Stoll calls this ‘snake oil’.

There are proven, cost-effective ways to achieve significant productivity gains from information technology – all that is required is a user-centric design that delivers real value at the individual level. If software were more intuitive and easier to use, people could spend more time actually doing their jobs. Landauer predicts that if every software programme were designed for usability, productivity within the service sector would rise by 4-9% annually. As Mr Landauer says, computers are wonderfully powerful devices, but their producers and users must learn to harness them more effectively.

Orla, it is submitted, has been proven to provide this long-sought-after effectiveness.

---

10. Acknowledgements

The authors would like to express their thanks for the very able assistance of all our colleagues at Orla who have, collectively, aided the development of the thinking articulated in this Paper. Whilst there are too many people to name individually, the authors’ special thanks go out to Kristin Lowe and Phill Cronin. We would also like to express our appreciation to Phil Graves for his exceptional, insightful work in defining and measuring worker efficiency and effectiveness for the Orla Survey System, illustrating in stark terms, the true cost of email overload.
A Model Information Infrastructure

Existing Inbox-Subfolder Paradigm

User-Change Required
1. Apply the 4D triage method
2. Identify a time frame for work completion
3. Collect & retrieve information to progress work
4. Maintain and work from a comprehensive task list