

# Building a Better World with Our Information

*The Future of Personal Information  
Management, Part 3*

# Synthesis Lectures on Information Concepts, Retrieval, and Services

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# Building a Better World with Our Information

*The Future of Personal Information Management, Part 3*

William Jones  
University of Washington

*SYNTHESIS LECTURES ON INFORMATION CONCEPTS, RETRIEVAL,  
AND SERVICES #42*

## ABSTRACT

Personal Information Management (PIM) is *the art of getting things done in our lives through information*. How do we—can we better—manage our information at home, at school, at work, at play and “@large” in a global community? How do we use information not only to know but also to represent, communicate and effect useful change in the world around us?

In the study of PIM, does the search for practical methods with practical impact lead to methods that are “massive open on-line”? Can the ancient practice of storytelling help us better to weave our fragmented information together? In the practice of PIM, how can our information best serve as “near knowledge”—close at hand and, through our information tools, serving in practical ways to extend the knowledge that’s “in the head”? If attempts to multitask lead to ineffective, even dangerous, instances of task switching and divided attention, can better PIM help us to realize, instead, opportunities for “multi-goaling” where the same time and effort accomplishes not just one but several goals?

These and other questions are addressed in this third and final book to conclude the series on “The Future of Personal Information Management.”

**Part 1, “Our Information, Always and Forever,”** covered the fundamentals of PIM and then explored the seismic shift, already well underway, towards a world where our information is always at hand (thanks to our devices) and “forever” on the web.

**Part 2, “Transforming Technologies to Manage Our Information,”** provided a more focused look at technologies for managing information. The opening chapter discussed “natural interface” technologies of input/output to free us from keyboard, screen and mouse. Successive chapters then explored technologies to save, search and structure our information. A concluding chapter introduced the possibility that we may see dramatic reductions in the “clerical tax” we pay as we work with our information.

Now in **Part 3, “Building a Better World with Our Information,”** focus shifts to the practical present and to the near future. Part 3 is in three chapters:

- **Group information management and the social fabric in PIM.** How do we preserve and promote our PIM practices as we interact with others at home, at work, at play and in wider, even global, communities? ([Chapter 10](#)).
- **Designing for PIM** in the development of tools and in the selection of teachable (learnable) “better practices” of PIM. ([Chapter 11](#)).
- **To each of us, our own** concludes with an exploration of the ways each of us, individually, can develop better practices for the management of our information in service of the lives we wish to live and towards a better world we all must share. ([Chapter 12](#)).

## KEYWORDS

PIM, personal information management, information overload, information fragmentation, HCI, human-computer interaction, cognitive science, keeping found things found



For Oliver

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# Preface

This is Part 3, *Building a Better World with Our Information*, the final book in a series, “The Future of Personal Information Management”. The series has been several years in the making.

Part 1 (2012), with its theme, “Our Information, Always and Forever,” laid a foundation for the treatment of personal information management (PIM) in four chapters:

- **Chapter 1.** A new age of information. What PIM is (and isn’t). A short history of PIM and its relationship to other fields. Metaphors that work well and not so well for the discussion of PIM. Our information “flows” as a liquid in communication to and from others. But increasingly it persists, as a “solid” on the Web. A home. We need roads to and from our home. But also walls...
- **Chapter 2.** The basics of PIM. The six senses in which information is personal combine to form a personal space of information (PSI). PIM is about minute-by-minute tactical decisions of keeping and finding. PIM also needs to be about longer-term meta-level strategies for maintaining and organizing, managing privacy and information flow, measuring and evaluating, and making sense of and using personal information.
- **Chapter 3.** Our information, always at hand. Through mobile devices, our physical and digital worlds meet—and sometimes collide. We’re always connected but always on call. How to avoid the dangers of multitasking “busyness”? How to really get “real” things done and, in the process, how to preserve precious memories for a lifetime and beyond?
- **Chapter 4.** Our information, forever on the Web. Reading, writing, and making things happen on the Web. From vertical, monolithic, “do-everything” applications that fragment personal information to horizontal, PIM activity applications that work together toward a common unity of personal information. Going “Neolithic”: How to live with, through, and on the Web. Our information on the web may outlive us, standing in reflection of and legacy for our lives.

Part 2, 2013, with its theme, “Transforming Technologies to Manage Our Information,” explored basic enabling technologies of PIM in five chapters:

- **Chapter 5.** Technologies of input and output. Technologies in support of gesture, touch, voice, and even eye movements combine to support a more natural user interface (NUI). Technologies of output include glasses and “watch” watches. Output will also increasingly be animated with options to “zoom.” Technologies combine to support a radically immersive experience of information in which the physical and digital combine in ways that will transform or experience of reality for good and bad.
- **Chapter 6.** Technologies to save our information. We can opt for “life logs” to record our experiences with increasing fidelity. What will we use these logs for? And what isn’t recorded that should be?
- **Chapter 7.** Technologies to search our information. The potential for personalized search is enormous and mostly yet to be realized. Persistent searches, situated in our information landscape, will allow us to maintain a diversity of projects and areas of interest without a need to continually switch from one to another to handle incoming information.
- **Chapter 8.** Technologies to structure our information. Structure is key if we are to keep, find, and make effective use of our information. But how best to structure? And how best to share structured information—between the applications we use, with other people, and also with ourselves over time? What lessons can we draw from the failures and successes in web-based efforts to share structure?
- **Chapter 9.** PIM transformed and transforming: Stories from the past, present, and future. Part 2 concludes with comparison between Licklider’s world of information in 1957 and our own world of information today. And then we consider what the world of information is likely to look like in 2057. Licklider estimated that he spent 85% of his “thinking time” in activities that were clerical and mechanical and might (someday) be delegated to the computer. What percentage of our own time is spent with the clerical and mechanical? What about in 2057?

Now in this final Part 3 of the series, with its theme, “Building a Better World with Our Information,” focus shifts from the foundational (Part 1) and the technical (Part 2) to more practical concerns in three chapters:

- **Chapter 10.** Group information management and the social fabric of PIM. We don’t (and shouldn’t) manage our information in isolation. Group information management (GIM)—especially the kind practiced informally in households and smaller project teams—goes hand in glove with good PIM. The chapter considers information for its value to represent, as the thing communicated and, especially, as

the means to know. The chapter considers PIM in several social situations: @home, @school, @work, @play, and at “@large”.

- **Chapter 11.** PIM by design. What considerations apply to the design of tools in support of PIM. What about better practices of PIM to be shared in programs of training and teaching PIM? What methods work best? What bigger challenges and opportunities of PIM must we keep in mind?
- **Chapter 12.** To each of us, our own. This final chapter is a “songs of experience” counterpart to [Chapter 11](#). Just as we must each be a student of our own practice of PIM, we must also be a designer of this practice. This concluding chapter looks at considerations, methods, and challenges and opportunities of PIM as we design our own Practices of PIM.

## CAVEATS AND DISCLAIMERS

References to scholarly articles of direct relevance to personal information management (PIM) are grouped together into a [bibliography](#) at the end of this book (Part 3).

Web references and references for non-PIM background reading are often included directly in footnotes.

I include no references to information you can easily find on the Web. Instead of references, I sometimes include suggested search terms.

I am an unabashed citer of Wikipedia (<http://www.wikipedia.org/>) articles when these are reasonably clear, complete and objectively written. The interested reader should use these articles not as a final destination but as a springboard (through references cited) for further study of a given topic. You the reader may discover—especially if you are expert on the topic of a Wikipedia article (whether or not cited here)—that the article is inaccurate or incomplete. If so, you should change it. Wikipedia and the like are an essential part of the world-wide, web-enabled dialog we must have to realize the power and potential in our information.

Part 3, “Building a Better World with Our Information,” takes a turn toward the practical in coverage of the social fabric of PIM and PIM by design both in tools and in individual Practices of PIM.

Even so, as with Parts 1 and Part 2, Part 3 is not a step-by-step “how to” manual. The aim instead is to provide guidelines, considerations, methods of inquiry, and a sense for larger challenges and opportunities of PIM. Equipped with these, it is hoped that readers, whether developers, instructors, or end users, are better able to meet their own special circumstances.

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