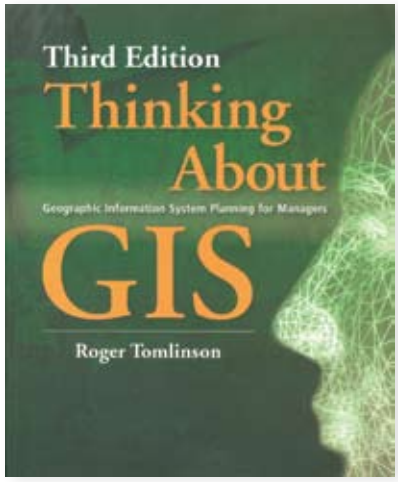
Thinking About GIS, 3rd ed.
By Roger Tomlinson. ESRI Press, Redlands, California. ISBN 978-1-58948-158-9, 238 pp. including appendices and an index)



Roger Tomlinson's *Thinking About GIS* is a well established GIS resource and is a must for any GIS bookshelf. It is widely considered to be required reading for GIS Managers. If you have not yet read it, then do so, and if you have read it, then, I believe, you will appreciate the third edition even more. Tomlinson provides insight into advanced planning methods and techniques that lead towards the successful development of GIS projects. He has fine-tuned these planning methods during his decades of implementing GIS projects and while leading his very popular GIS seminars.

Thinking About GIS is an excellent and valuable resource in managing GIS projects. It is designed as a guide for applying a planning process towards the project's development. The book efficiently organizes the planning methodology stages into individual chapters, which provides two excellent benefits to the reader. First it allows one to follow a stage-by-stage process, and second, it makes it possible to review the self-contained stages as and when needed for the successful completion of a project. The revisions contained in the third edition of *Thinking About GIS* are excellent, enriching the new manuscript.

The most valuable in *Thinking About GIS* is, from my point of view, its approach that GIS projects are more than just technology components. The book firmly establishes the value of comprehensive planning and management for successful GIS project implementation. Often people associate GIS strictly with technology, especially software and data, partly because many GIS concepts have emerged with the advent of technology.

The frequent question, What is GIS?, is usually answered with descriptions of the actions and results of GIS software. Anyone wanting to know more about GIS is encouraged to use the software and go through exercises—which I did in my learning stages. However, as my use of GIS grew, I realized the need to create GIS projects with more strategic implementations and planning. To help build my knowledge of project planning I attended Roger Tomlinson's "Planning and Managing a GIS" seminar. Through that seminar I saw GIS project implementation and management in a whole new light—how it can succeed within an organization.

Tomlinson has chosen to help the field of GIS technology by going beyond the software, focusing on the structure and organizational relationships that determine the ability of a GIS to succeed. He stresses the need for a sound planning methodology and identifies the requirements of successful implementation as well as the components required to build comprehensive knowledge of the project. After attending his seminar I realized the value of having a GIS Strategic Plan for my future GIS projects. Many previous projects, while successful, would have benefited from applying a GIS planning method giving due consideration to the operational requirements and organizational relationships that are inherent to successful implementation.

Thinking About GIS presents a clear GIS planning methodology organized into stages. The chapters devoted to the stages of planning a GIS project are preceded by a chapter in which Tomlinson presents "The Whole Picture" of GIS, i.e., its foundation. In the "Overview of the Method" chapter he introduces us to the 10 stages of his planning method, namely:

Stage 1: Consider the strategic purpose
Stage 2: Plan for the planning
Stage 3: Conduct a technology seminar
Stage 4: Describe the information products
Stage 5: Define the system scope
Stage 6: Create a data design
Stage 7: Choose a logical data model
Stage 8: Determine system requirements
Stage 9: Consider benefit-cost, migration and risk analysis
Stage 10: Plan the implementation

Each of these stages is detailed sequentially, guiding a manager through the planning process the merits and pitfalls of each stage. These chapters are also valuable as stand-alone references for use on less formal projects.

"It all starts with organization" is the message delivered in Stage 1 of the planning process described in *Thinking About GIS*. Stage 2 describes the GIS proposal being considered and its organizational requirements. At Stage 3, GIS planners and GIS users participate in a technology seminar to help them identify the roles they are likely to play. This concludes the "strategic organizational commitment" of the proposed GIS solutions. The information and products expected from the GIS are identified in Stage 4. The reader will be introduced to the components of an Information Product Description (IPD) to help identify these products. The next task is to identify the scope of the GIS required to create these products, i.e.,

the data, hardware, software and timing of the system. To guide this, Stage 5 of the book provides a template and case study for generating a Master Input Data List (MIDL). The general structure of the data is defined in Stage 6. At this stage, a data model is required to build the structure of the data. It is in Stage 7 that one begins to construct the data framework. The valuable information discussed in this chapter makes it a definite "must read." The various components of the planned GIS are identified in Stage 8, thus presenting the system's framework. This sometimes neglected step identifies the capacity of the system's hardware and software for server architecture and network design with the maximum functionality. Stage 9 may appear like a wrap-up task, but as Tomlinson writes, "you must show whether and when GIS will become cost effective." The investment in a GIS implementation requires formal awareness of its success, namely, the change brought about by the project must be justified in itself and also with regard to other projects that could benefit from integrating GIS solutions. Step 10 is the final step in planning a GIS project. "Only through a clear-cut path toward final implementation can we expect our efforts to result in positive change," writes Tomlinson.

Thinking About GIS is an excellent resource, greatly enhanced with information-filled appendices. Topics such as GIS staff, job descriptions, training, benchmark testing, network design, project proposals and preliminary design documentation are all explained in detail and should be helpful to any GIS manager on any project they may undertake.

This book is well known as a GIS classic, but do not be fooled into thinking it is dated. Its third edition is a brilliant presentation of the current status quo in planning and implementing successful GIS projects. The professional approach the author takes in *Thinking About GIS* is in itself guidance towards a successful implementation. Because chapters focus on single steps in the method, and even though I'm familiar with the whole picture, I was able to read the book as a guide to specific topics relevant to planning a GIS system. I find this compartmentalization especially valuable for learning about an issues in a comprehensive yet highly specific manner.

Overall, the book is highly informative and the narrative is easy to follow despite the complexity of the topics discussed and the information provided. The author has invested much thought into making each line, paragraph, and chapter fluid and balanced. I was equally impressed with the highly professional layout design of the book which uses illustrations, tables, examples, and flowcharts to enhance the content by making it more "visual. "Pictures are worth a thousand words, and so it may not come as a surprise that people accustomed to dealing with geographic information visually are likely to appreciate this layout strategy. Another useful layout solution is the use of side bars to present definitions and background to complex topics. This enables the reader to learn about an issue quickly, without getting lost in information that may not be immediately necessary for comprehension.

I enjoyed reading *Thinking About GIS* and wholeheartedly recommend it to all managers involved in planning GIS projects

Tom Tibbitts, PSM GISP
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Quantifying value of off-site content

Study finds average publisher is missing out on more than $150k per year

The study, released by the California-based Attributor Corporation in last November, confirms what many publishers have always known—their original content is powering significant revenue on other sites. The company is working with branded publishers and leading ad networks to quantify the Web-wide audience and revenue opportunities and determine the policies by which publishers can receive a revenue share of viral syndication of their content. The automotive and travel categories have the most significant opportunity to benefit. Sports and technology could, potentially, increase the audience viewing its content on syndicated sites by a multiple of 2 and higher. However, as the study suggests, syndication will work for the originator of content better it the right content is targeted to the right audiences. Not surprisingly, Attributor Corp. is marketing a technology, Attributor's TrueAudience™, which can determine viewing audience at destination site and off-site.