The new ArcGIS is a web GIS

By any measure, it is an exciting time to be working and engaged in the GIS field. Web GIS is emerging, and it is extending the reach of GIS.

ArcGIS has grown to become a web GIS platform that you can use to deliver authoritative maps, analytics, and geographic information to a wider audience, using lightweight clients and custom applications on the web and smart devices.

Virtually anyone can use web GIS to find, use, create, and share maps, perform GIS analysis, collaborate with others in groups and communities, and deploy easy-to-configure map-based applications for many extra users.
A living atlas of beautiful basemaps, imagery, and enabling geographic information is built into this platform. It is available for anyone to use, along with thousands of datasets and map services that have been shared and registered in ArcGIS by users like you from around the world.

The new ArcGIS provides an online infrastructure for making maps and geographic information available throughout an organization, across a community, and openly on the web. This new vision for web GIS fully complements, integrates, and extends the existing professional GIS workflows with which you are already familiar.

This book will begin your journey to begin to learn about, understand, and apply web GIS.

**What this book covers**

*Getting to Know Web GIS* is a workbook, with detailed, step-by-step exercises, that teaches readers how to share resources online and build web GIS applications easily and quickly. It is a practical manual for classroom lab work and on-the-job training for GIS students, instructors, GIS analysts, managers, web developers, and a broad range of GIS professionals. It covers the Esri suite of web GIS technologies, including ArcGIS Online, Portal for ArcGIS, ArcGIS for Server, web app templates, Web AppBuilder for ArcGIS, ArcGIS API for JavaScript, the Collector for ArcGIS mobile app, ArcGIS Runtime SDKs for Mobile, Esri CityEngine, and 3D web scenes.

The sample data for this book and a 60-day trial of ArcGIS for Desktop software are available on the Esri Press book resource page at esripress.esri.com/bookresources.

Web GIS is a promising field with great applicability to e-government, e-business, e-science, and daily life. The societal need for both the web and GIS has generated a strong and increasing
demand for good web GIS professionals. Professors need a lab book to teach this course, and on-the-job professionals need a guide to teach themselves. This book fits the need. In writing this book, I have tried to keep these provisions in mind and make it

- **easy to apply.** Web GIS is quite a technical field, but you do not have to be a developer to build web apps. This book facilitates immediate productivity. It teaches you how to build engaging web apps without a single line of programming. Even the two chapters involving programming are designed to be easy to follow and do not require a strong programming background.
- **current.** Web GIS technologies advance rapidly. The book teaches state-of-the-art technical skills for building applications and managing projects.
- **holistic.** Unlike books that focus on individual products, this book teaches web GIS technologies as a holistic platform, from the server side to the browser, mobile, and desktop client side. This book also addresses the pros and cons of the available development options and helps you make the best choices based on your requirements and resources.

Each of the 10 chapters provides

- a conceptual discussion that gives readers the big picture and the underlying principles,
- system requirements that help instructors set up the lab,
- a detailed tutorial with abundant screen captures that confirm progress along the way,
- common questions and answers,
- an assignment that allows readers to practice what they have learned, and
- a resource section.

The book is the result of my extensive working experience at Esri and teaching experience at Harvard University Extension, Henan University, and the University of Redlands. This course and the set of labs have been well recognized by these universities and students. Professors can use this book as the lab book for their web GIS courses, and professionals at work can use this book for on-the-job training.

I welcome your feedback at esripress@esri.com and hope this book sparks your imagination and encourages creative uses of web GIS.