

# Call for Chapters for the

## Handbook of Research on Emerging Rule-Based Languages and Technologies

### Open Solutions and Approaches

#### Editors:

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Web Site URL: <http://oxygen.informatik.tu-cottbus.de/handbook/>

#### Introduction:

Rules have traditionally been used in theoretical computer science, compiler technology, databases, logic programming, and Artificial Intelligence. These rules included backward chaining rules (or derivation rules), forward chaining rules (or production rules), and many authors also consider constraints (or integrity rules) to be as well. The history of rule-based programming and rule-based systems started in 1970 with Prolog, a logical and a declarative programming language. During that time, a number of other rule languages were created. Between the 1970's and 1990's, rule languages were used mainly in academia in logic programming or expert systems, but at the end of 1990's, a number of customers, including those working in domains such as *insurance (insurance rating), financial services (loans, claims routing and management, fraud detection), government (tax calculations), telecom customer (care and billing), e-commerce (personalizing the user's experience, recommender systems, auctions)*, started to see the benefits in their businesses by using rules in software applications. Rules started to be investigated not only in academia but in industry as well. A number of companies became involved in rule engines design and production ([IBM](#), [ILOG](#), [Fair Isaac](#) and others). Later open source projects appeared ([Drools](#), 2002) and other software vendors such as [Oracle](#) and [SAP](#) started to build their own rule packages. As individuals involved with these processes may know selecting an appropriate rules-based engine requires balancing many different, and often, not well-understood properties such as: (a) Business Rules Representation Methods (Forms, Language, Syntax, Taxonomy), (b) Rule History and Life Cycle Management, (c) Rule Types and Forms of Reasoning (d) Rule Verbalization, Visualization and Documentation, (e) Interoperability with External Data Sources (f) Testing and Debugging Tools and (g) Authoring Environments (IDE v. Browser v. Custom).

The **Handbook of Research on Emerging Rule-Based Languages and Technologies: Open Solutions and Approaches** provide a comprehensive state-of-the-art of rule languages, methodologies for building rule-based applications, rule interoperability/interchange and rule-based applications. The target readers are both developers of rule-based applications but also users of these applications. The book will help developers to accommodate rule languages as well as methodologies to design and build rule-based applications. The users will learn more about rule-based systems so that choosing solutions may become easier.

#### Book Coverage

The **Handbook of Research on Emerging Rule-Based Languages and Technologies: Open Solutions and Approaches** will provide a compendium of terms, definitions and explanations of concepts, processes and acronyms. Additionally, this volume will feature chapters (8,000-10,000 words) authored by leading experts offering an in-depth description of key terms and concepts related to rule technologies, issues and trends in business rules management, rule modeling and rule interoperability technologies in modern organizations worldwide.

The *main goal* of this handbook is *to give the state-of-the-art of rule languages, methodologies for building rule-based applications, rule interoperability/interchange and rule applications i.e.*

- To offer a comprehensive information about rule languages.
- To put together basic and advanced research on rules and rule-based applications.
- To be a source of methodologies for developing rule-based applications.
- To offer important use-cases where rules play a central role.

## Recommended topics include, but are not limited to, the following:

- Artificial Intelligence Rule Languages such as: [Prolog](#), [Lisp](#), [F-Logic](#), [CLIPS](#), [Jess](#), [ACE](#)
- Rule Markup Languages and Semantic Web Rule Languages: [RuleML](#), [SWRL](#), [TRIPLE](#), [JenaRules](#), [N3](#), [Euler](#), [R2ML](#), [RIF](#)
- Object Oriented Rule Languages: [OCL](#), [JBoss Rules](#), [Oracle Business Rules](#), [ILOG JRules](#)
- Developments in Rules Standards.
- Languages and Tools for Rule Modeling
- Rules Verification, Validation, Visualization and Publishing
- Rules Patterns
- Rules Capturing Evolution and Reactivity
- Trust Management and Policies Management
- Rule-based Web Query and Transformation Languages
- Rule-based Software Agents Modeling
- Rule-based Modeling of Web Services
- Rule Integration and Reasoning in ERP/CRM Systems

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## Invited Submissions:

Individuals interested in submitting chapters (8,000-10,000 words) on the above-suggested topics or other related topics in their area of interest should submit via [registration system](#) or e-mail a 2-3 page manuscript proposal clearly explaining the mission and concerns of the proposed chapter by **December 10, 2007**. We strongly encourage other topics that have not been listed in our suggested list, particularly if the topic is related to the research area in which you have expertise. Upon acceptance of your proposal **December 23, 2007**, you will have to prepare your chapter of *8,000-10,000 words* and *7-10 related terms* and their appropriate definitions. Full chapters will be due on **March 2, 2008**.

The submission web site is: <http://www.easychair.org/HRER2008/>

**This book is tentatively scheduled for publishing by Information Science Reference (formerly Idea Group Reference), <http://www.igi-pub.com/> , an imprint of IGI Global (formerly Idea Group, Inc.) in 2009.**

## Important Dates:

1. **December 10, 2007** Submission of Abstracts
2. **December 23, 2007** Abstract Notification of Acceptance
3. **March 2, 2008** Submission of Full Chapters
4. **April 15, 2008** Review results received
5. **May 15, 2008** Authors informed of needed revisions
6. **June 15, 2008** Revised chapters from authors
7. **July 15, 2008** Full chapter notification of acceptance
8. **July 30, 2008** Submission of camera ready version.
9. **2009** Book Publishing by Information Science Reference (formerly Idea Group Reference), <http://www.igi-pub.com/> an imprint of IGI Global (formerly Idea Group, Inc.) The production processes generally takes 6-8 months to complete, so the Handbook of Research on Emerging Rule-Based Languages and Technologies: Open Solutions and Approaches will be released in 2009.

**Proposals submitted by e-mail can be sent to:**

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