

Contents

1 Introduction to the book	1
1.1 Overview.....	1
1.2 Aims of the book, and who will benefit from it?	3
1.3 Structure of the book.....	4
1.3.1 Motivation for applying Semantic Web technologies to the Social Web	5
1.3.2 Introduction to the Social Web (Web 2.0, social media, social software).....	5
1.3.3 Adding semantics to the Web.....	6
1.3.4 Discussions.....	6
1.3.5 Knowledge and information sharing	6
1.3.6 Multimedia sharing.....	7
1.3.7 Social tagging	7
1.3.8 Social sharing of software	7
1.3.9 Social networks	8
1.3.10 Interlinking online communities.....	8
1.3.11 Social Web applications in enterprise	8
1.3.12 Towards the Social Semantic Web.....	9
2 Motivation for applying Semantic Web technologies to the Social Web	11
2.1 Web 2.0 and the Social Web.....	11
2.2 Addressing limitations in the Social Web with semantics	13
2.3 The Social Semantic Web: more than the sum of its parts.....	15
2.4 A food chain of applications for the Social Semantic Web	17
2.5 A practical Social Semantic Web	19
3 Introduction to the Social Web (Web 2.0, social media, social software)	21
3.1 From the Web to a Social Web.....	21
3.2 Common technologies and trends.....	25
3.2.1 RSS.....	25
3.2.2 AJAX.....	27
3.2.3 Mashups	28
3.2.4 Advertising	30
3.2.5 The Web on any device	32
3.2.6 Content delivery	34
3.2.7 Cloud computing	35
3.2.8 Folksonomies	38
3.3 Object-centred sociality	39

3.4 Licensing content.....	42
3.5 Be careful before you post.....	42
3.6 Disconnects in the Social Web	44
4 Adding semantics to the Web	45
4.1 A brief history.....	45
4.2 The need for semantics	47
4.3 Metadata	51
4.3.1 Resource Description Framework (RDF).....	52
4.3.2 The RDF syntax	54
4.4 Ontologies.....	56
4.4.1 RDF Schema	59
4.4.2 Web Ontology Language (OWL).....	61
4.5 SPARQL.....	62
4.6 The ‘lowercase’ semantic web, including microformats	64
4.7 Semantic search	66
4.8 Linking Open Data	67
4.9 Semantic mashups	69
4.10 Addressing the Semantic Web ‘chicken-and-egg’ problem.....	71
5 Discussions	75
5.1 The world of boards, blogs and now microblogs.....	75
5.2 Blogging	76
5.2.1 The growth of blogs	77
5.2.2 Structured blogging	79
5.2.3 Semantic blogging.....	81
5.3 Microblogging	85
5.3.1 The Twitter phenomenon	88
5.3.2 Semantic microblogging	89
5.4 Message boards.....	91
5.4.1 Categories and tags on message boards.....	92
5.4.2 Characteristics of forums	94
5.4.3 Social networks on message boards	97
5.5 Mailing lists and IRC.....	100
6 Knowledge and information sharing	103
6.1 Wikis.....	103
6.1.1 The Wikipedia.....	105
6.1.2 Semantic wikis	105
6.1.3 DBpedia	110
6.1.4 Semantics-based reputation in the Wikipedia	111

6.2 Other knowledge services leveraging semantics.....	112
6.2.1 Twine.....	112
6.2.2 The Internet Archive	115
6.2.3 Powerset	117
6.2.4 OpenLink Data Spaces	119
6.2.5 Freebase.....	119
7 Multimedia sharing	121
7.1 Multimedia management	121
7.2 Photo-sharing services	122
7.2.1 Modelling RDF data from Flickr.....	123
7.2.3 Annotating images using Semantic Web technologies.....	125
7.3 Podcasts	126
7.3.1 Audio podcasts	127
7.3.2 Video podcasts	129
7.3.3 Adding semantics to podcasts	131
7.4 Music-related content	133
7.4.1 DBTune and the Music Ontology.....	133
7.4.2 Combining social music and the Semantic Web	134
8 Social tagging	137
8.1 Tags, tagging and folksonomies	137
8.1.1 Overview of tagging.....	137
8.1.2 Issues with free-form tagging systems	140
8.2 Tags and the Semantic Web.....	142
8.2.1 Mining taxonomies and ontologies from folksonomies	143
8.2.2 Modelling folksonomies using Semantic Web technologies.....	144
8.3 Tagging applications using Semantic Web technologies.....	148
8.3.1 Annotea	148
8.3.2 Revyu.com.....	149
8.3.3 SweetWiki	151
8.3.4 int.ere.st	151
8.3.5 LODr	152
8.3.6 Atom Interface.....	153
8.3.7 Faviki.....	154
8.4 Advanced querying capabilities thanks to semantic tagging	155
8.4.1 Show items with the tag ‘semanticweb’ on any platform.....	155
8.4.2 List the ten latest items tagged by Alexandre on SlideShare.....	155
8.4.3 List the tags used by Alex on SlideShare and by John on Flickr.....	157
8.4.4 Retrieve any content tagged with something relevant to the Semantic Web field	158

9 Social sharing of software	159
9.1. Software widgets, applications and projects	159
9.2 Description of a Project (DOAP)	160
9.2.1 Examples of DOAP use	161
9.3 Crawling and browsing software descriptions	164
9.4 Querying project descriptions and related data	166
9.4.1 Locating software projects from people you trust	166
9.4.2 Locating a software project related to a particular topic	167
10 Social networks	169
10.1 Overview of social networks	169
10.2 Online social networking services	173
10.3 Some psychology behind SNS usage	175
10.4 Niche social networks	177
10.5 Addressing some limitations of social networks	179
10.6 Friend-of-a-Friend (FOAF)	181
10.6.1 Consolidation of people objects	184
10.6.2 Aggregating a person's web contributions	186
10.6.3 Inferring relationships from aggregated data	187
10.7 hCard and XFN	189
10.8 The Social Graph API and OpenSocial	190
10.8.1 The Social Graph API	190
10.8.2 OpenSocial	192
10.9 The Facebook Platform	193
10.10 Some social networking initiatives from the W3C	194
10.11 A social networking stack	194
11 Interlinking online communities	197
11.1 The need for semantics in online communities	197
11.2 Semantically-Interlinked Online Communities (SIOC)	198
11.2.1 The SIOC ontology	201
11.2.2 SIOC metadata format	203
11.2.3 SIOC modules	205
11.3 Expert finding in online communities	206
11.3.1 FOAF for expert finding	208
11.3.2 SIOC for expert finding	209
11.4 Connections between community description formats	211
11.5 Distributed conversations and channels	212
11.6 SIOC applications	215
11.7 A food chain for SIOC data	216
11.7.1 SIOC producers	218
11.7.2 SIOC collectors	223
11.7.3 SIOC consumers	224
11.8 RDFa for interlinking online communities	231

11.9 Argumentative discussions in online communities.....	234
11.10 Object-centred sociality in online communities.....	236
11.11 Data portability in online communities.....	238
11.11.1 The DataPortability working group.....	238
11.11.2 Data portability with FOAF and SIOC.....	240
11.11.3 Connections between portability efforts.....	241
11.12 Online communities for health care and life sciences.....	242
11.12.1 Semantic Web Applications in Neuromedicine.....	243
11.12.2 Science Collaboration Framework.....	244
11.12.3 bio-zen and the art of scientific community maintenance.....	246
11.13 Online presence.....	246
11.14 Online attention.....	247
11.15 The SIOC data competition.....	247
12 Social Web applications in enterprise.....	251
12.1 Overview of Enterprise 2.0.....	251
12.2 Issues with Enterprise 2.0.....	255
12.2.1 Social and philosophical issues with Enterprise 2.0.....	255
12.2.2 Technical issues with Enterprise 2.0.....	258
12.3 Improving Enterprise 2.0 ecosystems with semantic technologies.....	262
12.3.1 Introducing SemSLATES.....	262
12.3.2 Implementing semantics in Enterprise 2.0 ecosystems.....	263
12.3.3 SIOC for collaborative work environments.....	266
13 Towards the Social Semantic Web.....	269
13.1 Possibilities for the Social Semantic Web.....	269
13.2 A community-guided Social Semantic Web.....	271
13.2.1 Wisdom of the crowds and the Semantic Web.....	272
13.2.2 A grassroots approach.....	273
13.2.3 The vocabulary onion.....	275
13.3 Integrating with the Social Semantic Desktop.....	278
13.4 Privacy and identity on the Social Semantic Web.....	279
13.4.1 Keeping privacy in mind.....	279
13.4.2 Identity fragmentation.....	280
13.5 The vision of a Social Semantic Web.....	281
Acknowledgments.....	285
Dedication from John.....	287
Biographies.....	289
References.....	291



<http://www.springer.com/978-3-642-01171-9>

The Social Semantic Web

Breslin, J.; Passant, A.; Decker, S.

2009, IX, 300 p., Hardcover

ISBN: 978-3-642-01171-9