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12 **Editors:**

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14 **Target audience:**

15 Communities of potential or actual DDI users, particularly those interested in sharing
16 their metadata.

17 **Abstract:**

18 This best practice covers the process of developing agreements and guidelines for
19 implementation and governance of DDI as a metadata scheme for a community. The
20 best practice recognizes that different communities will, by necessity, have different
21 processes for this, and offers a checklist of issues for communities to consider
22 before implementing DDI.

23 **Status:**

24 This document is updated periodically on no particular schedule. Send comments to
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27 Appendix C. Legal Notices].



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42

43 **1 Introduction**

44 This best practice covers the process of developing agreements and guidelines within a
45 community that is planning to implement a DDI metadata scheme. Further, it provides
46 instruction in creating DDI Profiles [see 2.1 Definitions] and governing them over time.

47 **1.1 Problem statement**

48 While the DDI can be applied in many social science research data and metadata
49 management environments, it is not a “one size fits all” solution. Clearly, different
50 communities will need to develop and maintain different kinds of metadata sets, based on
51 their specific domain, underlying data management needs, and local context. The
52 modularity of DDI 3 allows user communities to make choices of which subsets of the
53 available modules, elements, and attributes within DDI to use and to instantiate those sets
54 in DDI Profiles. This best practice covers the process of developing agreement around the
55 Profile and guidelines for governance within communities adopting and implementing DDI.
56 The principle of metadata sharing is central to the development of this best practice.

57 **1.2 Terminology**

58 The key words *must*, *must not*, *required*, *shall*, *shall not*, *should*, *should not*, *recommended*,
59 *may*, and *optional* in this document are to be interpreted as described in [RFC2119].

60 Additional DDI standard terminology and definitions are found in

61 <http://www.ddialliance.org/bp/definitions>

62 **2 Best Practice Solution**

63 **2.1 Definitions**

64 Community: In this document, the term *community* is used to identify any grouping of
65 personal or organizational entities, at different levels of formal organization, that are
66 considering or undertaking implementation of DDI. Examples: a national statistical service,
67 a data producer, an archive, a consortium of data archives.

68 Governance: The term *governance* is used here to refer to the procedures associated with
69 the decision-making, control, and administration of DDI metadata sets.

70 DDI Profile: A mechanism to describe an organization’s selected subset of elements and
71 attributes.



72 **2.2 Best Practice behavior**

73 **Using DDI – Initial Questions**

74 In order to make an informed decision about whether to adopt DDI, one should consider the
75 following high-level questions:

- 76 • What are your ultimate goals in using DDI?
- 77 • Do you want to share your metadata?
- 78 • Who are the users to be served and what services will be provided?

79 **Ensuring that DDI Meets Your Needs**

80 As a first step, you will need to understand the DDI as well as its relationship to other
81 relevant metadata standards (e.g., SDMX, ISO/IEC 11179, MARC, Dublin Core – see
82 References for more information).

83 To become familiar with the DDI, you may wish to consult the introductory informational
84 materials of the DDI Alliance; as a further step, you can arrange with the DDI Alliance for
85 possible training opportunities, advice on future tools deployment, and other guidance. See
86 <http://www.ddialliance.org/>.

87 When exploring adoption of DDI, it is useful to learn from other organizations that are
88 implementing DDI for projects similar to your own. See, for examples, the DDI Alliance
projects list: <http://www.ddialliance.org/ddi-at-work/projects>

90 Within the community, the first group to assess DDI for local adaptation (for example, the
91 metadata specialists of a data repository) should share the results of its assessment with its
92 internal stakeholders (for example, the potential data depositors for that repository) so that
93 the organization can agree to proceed.

94 **Developing a Successful DDI Implementation**

95 ***Defining the scope of your community or communities***

96 Your community will be defined by the project that you will be undertaking. It should be
97 cohesive enough to agree on a common set of elements for adoption. The community
98 should be able to clearly define the concepts and terminologies it uses. Keep in mind that
99 your community may broaden over time.

100 It is useful to create an advisory group that represents stakeholders in your community to
101 oversee and guide your efforts and provide a layer of governance.



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102 **Addressing infrastructure needs**

103 A successful implementation of DDI requires adequate infrastructure to support initial
104 adoption and ongoing use of DDI. Infrastructure includes IT resources, financial resources,
105 and sufficient staff with relevant skill sets, such as metadata management, knowledge of
106 good documentation, etc.

107 You will need to determine how much, if any, of the infrastructure will be outsourced. An
108 organization ramping up with DDI may be able to use temporary employees or students to
109 do some of the work.

110 **Developing a DDI profile**

111 DDI models the data life cycle (<http://www.icpsr.umich.edu/DDI/committee-info/Concept-Model-WD.pdf>). You will need to determine which modules of the life cycle you want to
112 describe and present to users. This will influence support, documentation, and education
113 needs. The next step is to assess and reach consensus on the appropriate elements and
114 attributes for your needs. You will want to consult your advisory group about these
115 important decisions.
116

117 Refer to the DDI Profile Best Practices document for more in-depth guidelines on the steps
118 to follow in creating a DDI Profile (see References).

119 Ideally, the DDI Profile should include information on local best practices for creating
120 metadata for specific elements. However, some organizations maintain a separate set of
121 local guidelines/manuals for their DDI implementation, and some do both. The Odesi project
122 (see References) is a good example of presenting local best practice.

123 You will need to decide whether to include controlled vocabularies and authority lists in your
124 local best practices guidelines. See the Best Practice on Controlled Vocabularies document.

125 To insure high quality metadata, you should consider ongoing quality assurance.

126 You need to develop a mechanism to evaluate the final product of your DDI implementation.
127 Your advisory group can provide important input into this evaluation.

128 **Implementing user feedback, versioning, maintenance**

129 The community should remain committed to continued maintenance of its DDI Profile (e.g.,
130 proper dating, versioning, and publishing processes). The Profile should always remain in
131 synch with the DDI metadata your organization exposes. See the Best Practice on
132 Versioning for more information.

133 Any changes to the DDI profile should be communicated within and outside the community,
134 as appropriate.



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135 You may want to undertake outreach activities to make sure that all interested parties use
136 your profile.

137 License your profile using a Creative Commons license so that others may take advantage
138 of it.

139 **3 Discussion**

140 This Best Practice offers a set of issues for communities to consider before implementing
141 DDI and guidance in how to create a Profile. Successful decision-making about
142 implementation of DDI requires governance procedures without which the process is likely
143 to become derailed. However, prescription of the consensus-reaching methods of the
144 community is outside of the scope of this best practice.

145 The internal processes for reaching consensus, allocating responsibilities, and so forth, will
146 of course differ for the various types of communities; they would likely be quite different in a
147 commercial firm than in a scholarly society, for instance. This document does not address
148 those differences.

149 Although this best practice recommends that the selection of core DDI metadata elements
150 for the community occur early in the implementation process, best practices for the actual
151 development of a DDI Profile are outside of the scope of this document, but can be found in
152 the DDI Profile Best Practices document.

153 **4 Example**

154 The decision making process at CESSDA, the Odesi project, and the International
155 Household Survey Network quality control information are positive examples of DDI
156 implementation and governance (see References section).

157 The Council of European Social Science Data Archives (CESSDA) created its integrated
158 catalogue based on shared use of DDI instances. Part of this process involved early
159 agreement on a profile of mandatory elements and the adoption of a common set of
160 concepts.

161 **5 References**

162 DDI Profile Best Practices:

163 <http://dx.doi.org/10.3886/DDIBestPractices06>

164 International Household Survey Network Quick Reference Guide for Data Archivists
165 (contains quality control information):

166 http://www.ddialliance.org/sites/default/files/bp/DDI_IHSN_Checklist_OD_06152007.pdf



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- 167 CESSDA Governance: <http://www.cessda.org/about/governance/>
- 168 ODESI project Administrative Documents:
169 http://odesi.uoguelph.ca/wiki/index.php/Administrative_Documents
- 170 DDI tools: <http://tools.ddialliance.org/>
- 171 SDMX - Statistical Data and Metadata Exchange: <http://www.sdmx.org/>
- 172 ISO/IEC 11179 standard for representing metadata for an organization in a Metadata
173 Registry: <http://metadata-standards.org/11179/>
- 174 MARC standards: <http://www.loc.gov/marc/>
- 175 Dublin Core Metadata Initiative: <http://dublincore.org>
- 176 **5.1 Normative**
- 177 [RFC2119]S. Bradner, Key words for use in RFCs to Indicate Requirement Levels,
178 <http://www.ietf.org/rfc/rfc2119.txt>, IETF RFC 2119, March 1997.
- 179 OASIS, Best Practice, [http://www.oasis-open.org/committees/uddi-spec/doc/bp/uddi-](http://www.oasis-open.org/committees/uddi-spec/doc/bp/uddi-spec-tc-bp-template.doc)
180 [spec-tc-bp-template.doc](http://www.oasis-open.org/committees/uddi-spec/doc/bp/uddi-spec-tc-bp-template.doc), 2003



181 **Appendix A. Acknowledgments**

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209 **Appendix B. Revision History**

210

Rev	Date	By Whom	What
0.9	2009-02-08	Stefan Kramer	Removed date from filename to accommodate linking. Began revision history tracking.

211



212 **Appendix C. Legal Notices**

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