# Expert and Award Data Specifications

The most efficient method of importing data into Florida ExpertNet is a web-accessible XML data feed or feeds that we can access automatically.  The current specification calls for two separate XML files, one for expert/faculty information and one for award/project information with a foreign key in the award feed to connect awards to associated experts of the feeds to connect the two.

This specification represents an ideal circumstance with a large amount of data available for import into Florida Expertnet.  It is recognized that not all of the specified data may be available at any given university due to various reasons.  Our technical staff do have some flexibility when it comes to breaking up the files, especially the expert one if it works better to provide a record with 'core' expert information and third one with additional expert data.

## Definitions & General Business Rules

- **Expert:**
  An expert is defined as a faculty member who is a PI or Co-PI (or equivalent) on one or more externally funded projects ***and is currently employed at the university***.

- **Project/Award/Proposal:**
  The terms project, award and proposal in the context of Florida Expertnet and these specifications are effectively equivalent and refer to an externally funded research project.

- **Sponsor:**
  A sponsor is the external organization which has provided the funding associated with any given Award.

- **Unique ID:**
  A unique ID is an alpha-numeric sequence assigned to an entity such as an Expert or Award that should not change over time and which can be used to uniquely identify that entity any time it is included in a data feed.  This ID allows us to match data in the import feed with the copy of that same entity within the Florida ExpertNet database.

  These unique IDs can be the same values used in providing university's systems or something different (such as a hashed versions of a University's internal IDs) as long as the same value will consistently be associated with the associated entity over time.

- **Truncation:**
  Data should not be truncated. We realize there can be limitations based on how each university collects and stores their data, but if possible complete data should be provided as we will not filter out data that appears 'broken' due to it being truncated.

- **Data Completeness:**
  Complete data should be included in the XML files, not just new or changed records.

- **Field Restrictions:**
  The specifications indicate the type and length of the data that can be provided for each field.  These data type specifications are based on the MS SQL Server datatypes and are designated based largely on past experience with the data received by Florida ExpertNet.  If the data to be provided by your university does not conform to these field restrictions, please discuss these differences with our technical staff as adjustments can often be made to work with your requirements.

- **XML vs. JSON**
  Our preference at this time is to have this data provided in the following XML format.  Should JSON work better for a given university our technical staff can probably make arrangements for the different data format.

- **Means of Providing the Files**
  Florida Expertnet has a fair amount of flexibility in how the data files can be provided to us.  The preferred method is a web address from which up-to-date copies of the files can be pulled on a monthly basis.  The address can be a simple link to the xml files or a link to a web service or other API which results in sending the XML files.

## AWARDS XML FEED

### XML EXAMPLE

```xml
<Awards>
    <Award>
        <sourceID>00032304</sourceID>
        <title>Survey Research on Florida Boaters and Manatee Management</title>
        <beginDate>2000-01-21</beginDate>
        <endDate>2000-11-30</endDate>
        <agencyContractNo>Z-99106</agencyContractNo>
        <awardAmount>7869.92</awardAmount>
        <sourceSponsorID>GM02975</sourceSponsorID>
        <orgName>Florida Fish &amp; Wildlife Conservation Commission</orgName>
        <Abstract>Proposal covers the development, administration, analysis and distribution of a survey
targeting Florida boaters in relation to Manatee preservation and management efforts.</Abstract>
        <keywordDescr >Wildlife Conservation; Survey Administration; Manatee</keywordDescr>
        <departmentID>11111</departmentID>
        <departmentName>Environmental Studies</departmentName>
        <investigators>
            <expertID isPI="1">1234556</expertID>
            <expertID isPI="0">5642342</expertID>
        </investigators>
    </Award>
    <Award>
        <sourceID>00032304</sourceID>
        <title>Characterization of Air Data Probes and Vanes at the FSU Polysonic Wind Tunnel</title>
        <beginDate>2022-10-10</beginDate>
        <endDate>2024-09-30</endDate>
        <agencyContractNo>44747a</agencyContractNo>
        <awardAmount>15000.00</awardAmount>
        <sourceSponsorID>2231221</sourceSponsorID>
        <orgName>Aerosonic</orgName>
        <Abstract/>
        <investigators>
            <expertID isPI="1">99848411</expertID>
        </investigators>
    </Award>
</Awards>
```

## XML Schema

```xml
<xs:schema attributeFormDefault="unqualified" elementFormDefault="qualified"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
 <xs:element name="Awards">
  <xs:complexType>
   <xs:sequence>
    <xs:element name="Award" maxOccurs="unbounded" minOccurs="0">
     <xs:complexType>
      <xs:sequence>
       <xs:element type="xs:string" name="sourceID" use="required">
        <xs:annotation>
         <xs:documentation>Award Unique ID (varchar(250))</xs:documentation>
        </xs:annotation>
       </xs:element>
       <xs:element type="xs:string" name="title" use="required">
        <xs:annotation>
         <xs:documentation>Award Title (varchar(5000))</xs:documentation>
        </xs:annotation>
       </xs:element>
       <xs:element type="xs:date" name="beginDate" use="required">
        <xs:annotation>
         <xs:documentation>Award Begin Date (date)</xs:documentation>
        </xs:annotation>
       </xs:element>
       <xs:element type="xs:date" name="endDate" use="required">
        <xs:annotation>
         <xs:documentation>Award End Date (date)</xs:documentation>
        </xs:annotation>
       </xs:element>
       <xs:element type="xs:string" name="agencyContractNo">
        <xs:annotation>
         <xs:documentation>Award Contract Number (varchar(50))</xs:documentation>
        </xs:annotation>
       </xs:element>
       <xs:element type="xs:float" name="awardAmount" use="required">
        <xs:annotation>
         <xs:documentation>Award Amount (money)</xs:documentation>
        </xs:annotation>
       </xs:element>
       <xs:element type="xs:string" name="sourceSponsorID" use="required">
        <xs:annotation>
         <xs:documentation>Unique ID for the Award Sponsor (varchar(500))</xs:documentation>
        </xs:annotation>
       </xs:element>
       <xs:element type="xs:string" name="orgName" use="required">
        <xs:annotation>
         <xs:documentation>Award Sponsor Name (varchar(5000))</xs:documentation>
        </xs:annotation>
       </xs:element>
       <xs:element type="xs:string" name="Abstract" minOccurs="0">
        <xs:annotation>
         <xs:documentation>Award Abstract/Description (varchar(5000))</xs:documentation>
        </xs:annotation>
```

```
        </xs:element>
        <xs:element type="xs:string" name="keywordDescr" minOccurs="0">
         <xs:annotation>
          <xs:documentation>Award Comma-delimited Keywords (varchar(5000))</xs:documentation>
         </xs:annotation>
        </xs:element>
        <xs:element type="xs:string" name="departmentID" minOccurs="0">
         <xs:annotation>
          <xs:documentation>Unique Identifier for Department the Award is associated with
(varchar(50))</xs:documentation>
         </xs:annotation>
        </xs:element>
        <xs:element type="xs:string" name="departmentName" minOccurs="0">
         <xs:annotation>
          <xs:documentation>Name of Department the Award is associated with (varchar(500))</xs:documentation>
         </xs:annotation>
        </xs:element>
        <xs:element name="investigators">
         <xs:complexType>
          <xs:sequence>
           <xs:element type="xs:string" name="expertID" maxOccurs="unbounded" minOccurs="1">
            <xs:complexType>
                 <xs:simpleContent>
                  <xs:extension base="xs:int">
                   <xs:attribute type="xs:byte" name="isPI" use="optional"/>
             <xs:annotation>
              <xs:documentation>Boolean to indicate if Expert is PI or CoPI/OtherPI (boolean)</xs:documentation>
             </xs:annotation>
                  </xs:extension>
                 </xs:simpleContent>
                </xs:complexType>
            <xs:annotation>
             <xs:documentation>Unique Identifier for Faculty Member in Expert Feed who is a PI or CoPI
(varchar(500))</xs:documentation>
            </xs:annotation>
           </xs:element>
          </xs:sequence>
         </xs:complexType>
        </xs:element>
       </xs:sequence>
      </xs:complexType>
     </xs:element>
    </xs:sequence>
   </xs:complexType>
  </xs:element>
</xs:schema>
```

## EXPERTS XML FEED
## XML EXAMPLE

```xml
<Experts>
    <Expert>
        <ExpSourceID>9988776432</ExpSourceID>
        <ExpDeptID>000323</ExpDeptID>
        <DeptWork>Center for Information Management &amp; Educational Services</DeptWork>
        <ExpHomeDeptID>000323</ExpHomeDeptID>
        <DeptHome>Center for Information Management &amp; Educational Services</DeptHome>
        <CollegeWork>Inst for Sci &amp; Public Affairs</CollegeWork>
        <ExpStatus>Active</ExpStatus>
        <Address1>2035 E Paul Dirac Dr</Address1>
        <Address2>210A Sliger Bldg</Address2>
        <Address3 />
        <Address4 />
        <City>Tallahassee</City>
        <State>FL</State>
        <Zip>32306-2802</Zip>
        <Phone>850-644-6995</Phone>
        <Fax>850-644-8257</Fax>
        <Email>bmonroe@fsu.edu</Email>
        <ExpTitle>Specialist, Computer Research</ExpTitle>
        <FName>Blair</FName>
        <MName>A</MName>
        <LName>Monroe</LName>
        <ORCID>0000-0001-6777-9504</ORCID>
        <bio>Overview or biographical summary of the expert.</bio>
        <Appointments>
            <appointment>
                <position>Assistant Director</position>
                <institution>Florida State University</institution>
                <departmentID>00022651</departmentID>
                <department>Center for Information Management &amp; Educational Services</department>
                <startYear>2020</startYear>
                <endYear />
            </appointment>
            <appointment>
                <position>Coordinator, Web Application Engineering</position>
                <institution>Florida State University</institution>
                <department>Center for Information Management &amp; Educational Services</department>
                <startYear>2002</startYear>
                <endYear>2020</endYear>
            </appointment>
        </Appointments>
        <researchKeywords>
            <keyword>Information Architecture</keyword>
            <keyword>Usability</keyword>
            <keyword>Web Development</keyword>
            <keyword>Web Portals</keyword>
        </researchKeywords>
        <researchInterests>Paragraph of information touching on the general research interests of the faculty
member.</researchInterests>
        <Education>
```

```
            <Degree>
                  <type>M.S.</type>
                  <date>1996</date>
                  <institution>Florida State University</institution>
                  <discipline>Library and Information Studies</discipline>
            </Degree>
            <Degree>
                  <type>B.S.</type>
                  <date>1993</date>
                  <institution>Michigan State University</institution>
                  <discipline>Engineering Arts</discipline>
            </Degree>
      </Education>
      <Honors>
            <honor>
                  <title>Achievement Award</title>
                  <year>2020</year>
                  <organization>Center for Information Management and Education Services</organization>
            </honor>
      </Honors>
      <Publications>
            <publication>
                  <title>Impacts on Information Systems</title>
                  <type>Article</type>
                  <publicationYear>2020</publicationYear>
                  <doi>10.1187/cbe.21-10-0301</doi>
                  <pmid>12345678</pmid>
                  <journalTitle>Demonstration Information Science</journalTitle>
                  <journalVolume>15(6)</journalVolume>
                  <monographTitle />
                  <publisher />
                  <authorList>Monroe, B; Arsenault, B</authorList>
                  <url />
            </publication>
            <publication>
                  <title>Thermodynamic Quantities Governing Melting</title>
                  <type>Chapter</type>
                  <publicationYear>2007</publicationYear>
                  <doi />
                  <pmid />
                  <journalTitle />
                  <journalVolume />
                  <monographTitle>Physical Properties of Polymers Handbook</monographTitle>
                  <publisher>New York: Springer-Verlag</publisher>
                  <authorList>Alamo, Rufina G; Mandelkern, L</authorList>
                  <url />
            </publication>
      </Publications>
</Expert>
<Expert>
      <ExpSourceID>1123232321</ExpSourceID>
      <ExpDeptID />
      <DeptWork />
      <ExpHomeDeptID />
      <DeptHome />
```

```
        <CollegeWork>College of Engineering</CollegeWork>
        <ExpStatus>Retired</ExpStatus>
        <Address1 />
        <Address2 />
        <Address3 />
        <Address4 />
        <City />
        <State />
        <Zip />
        <Phone />
        <Fax />
        <Email>someone@fsu.edu</Email>
        <ExpTitle>Asst. Professor</ExpTitle>
        <FName>Steve</FName>
        <MName />
        <LName>Omeone</LName>
        <ORCID />
        <Appointments />
        <researchKeywords />
        <researchInterests />
        <Education />
        <Honors />
        <Publications />
    </Expert>
</Experts>
```

## XML SCHEMA

```xml
<?xml version="1.0" encoding="utf-8"?>
<xs:schema attributeFormDefault="unqualified" elementFormDefault="qualified"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
 <xs:element name="Experts">
  <xs:complexType>
   <xs:sequence>
    <xs:element maxOccurs="unbounded" name="Expert">
     <xs:complexType>
      <xs:sequence>
       <xs:element name="ExpSourceID" type="xs:string" use="required">
      <xs:annotation>
      <xs:documentation>Unique Identifier for the Faculty Member (varchar(250))</xs:documentation>
     </xs:annotation>
     </xs:element>
        <xs:element name="ExpDeptID" type="xs:string" >
      <xs:annotation>
      <xs:documentation>Unique Identifier for Expert's Work Department (varchar(50))</xs:documentation>
     </xs:annotation>
      </xs:element>
        <xs:element name="DeptWork" type="xs:string" >
      <xs:annotation>
      <xs:documentation>Name of Expert's Work Department (varchar(200))</xs:documentation>
     </xs:annotation>
     </xs:element>
      <xs:element type="xs:string" name="ExpHomeDeptID">
      <xs:annotation>
        <xs:documentation>Unique Identifier for Expert's Home Department (varchar(50))</xs:documentation>
      </xs:annotation>
     </xs:element>
     <xs:element type="xs:string" name="DeptHome">
      <xs:annotation>
       <xs:documentation>Name of Expert's Work Department (varchar(200))</xs:documentation>
      </xs:annotation>
     </xs:element>
     <xs:element type="xs:string" name="CollegeWork" use="required">
      <xs:annotation>
       <xs:documentation>Name of Expert's College/School (varchar(300))</xs:documentation>
      </xs:annotation>
     </xs:element>
     <xs:element type="xs:string" name="ExpStatus" use="required">
      <xs:annotation>
       <xs:documentation>Employment Status of Faculty (varchar(25))</xs:documentation>
      </xs:annotation>
      <xs:simpleType>
        <xs:restriction base="xs:string">
        <xs:enumeration value="Active"/>
        <xs:enumeration value="Leave with Pay"/>
        <xs:enumeration value="Leave of Absence"/>
        <xs:enumeration value="Inactive"/>
        <xs:enumeration value="Deceased"/>
          <xs:enumeration value="Relocated"/>
          <xs:enumeration value="Resigned"/>
```

```xml
      <xs:enumeration value="Retired"/>
      <xs:enumeration value="Not to be Contacted"/>
      <xs:enumeration value="Unknown"/>
     </xs:restriction>
    </xs:simpleType>
 </xs:element>
 <xs:element type="xs:string" name="Address1">
  <xs:annotation>
   <xs:documentation>Expert Office Address - Street Line 1 (varchar(250))</xs:documentation>
  </xs:annotation>
 </xs:element>
 <xs:element type="xs:string" name="Address2">
  <xs:annotation>
   <xs:documentation>Expert Office Address - Street Line 2 (varchar(250))</xs:documentation>
  </xs:annotation>
 </xs:element>
 <xs:element type="xs:string" name="Address3">
  <xs:annotation>
   <xs:documentation>Expert Office Address - Street Line 3 (varchar(250))</xs:documentation>
  </xs:annotation>
 </xs:element>
 <xs:element type="xs:string" name="Address4">
  <xs:annotation>
   <xs:documentation>Expert Office Address - Street Line 4 (varchar(250))</xs:documentation>
  </xs:annotation>
 </xs:element>
 <xs:element type="xs:string" name="City">
  <xs:annotation>
   <xs:documentation>Expert Office Address - City (varchar(250))</xs:documentation>
  </xs:annotation>
 </xs:element>
 <xs:element type="xs:string" name="State">
  <xs:annotation>
   <xs:documentation>Expert Office Address - State (varchar(250))</xs:documentation>
  </xs:annotation>
 </xs:element>
 <xs:element type="xs:string" name="Zip">
  <xs:annotation>
   <xs:documentation>Expert Office Address - Zip Code (varchar(250))</xs:documentation>
  </xs:annotation>
 </xs:element>
 <xs:element type="xs:string" name="Phone">
  <xs:annotation>
   <xs:documentation>Expert Office Phone (varchar(50))</xs:documentation>
  </xs:annotation>
 </xs:element>
 <xs:element type="xs:string" name="Fax">
  <xs:annotation>
   <xs:documentation>Expert Office Fax (varchar(50))</xs:documentation>
  </xs:annotation>
 </xs:element>
 <xs:element type="xs:string" name="Email" use="required">
  <xs:annotation>
   <xs:documentation>Expert Official University Email (varchar(100))</xs:documentation>
  </xs:annotation>
```

```xml
    </xs:element>
    <xs:element type="xs:string" name="ExpTitle">
      <xs:annotation>
        <xs:documentation>Expert's Title (varchar(250))</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element type="xs:string" name="Fname" use="required">
      <xs:annotation>
        <xs:documentation>Expert First Name (varchar(100))</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element type="xs:string" name="Mname">
      <xs:annotation>
        <xs:documentation>Expert Middle Name (varchar(100))</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element type="xs:string" name="Lname" use="required">
      <xs:annotation>
        <xs:documentation>Expert Last Name (varchar(100))</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element type="xs:string" name="ORCID">
      <xs:annotation>
        <xs:documentation>Expert's ORCID (varchar(255))</xs:documentation>
      </xs:annotation>
    </xs:element>
    <xs:element minOccurs="0" name="bio" type="xs:string">
      <xs:annotation>
        <xs:documentation>Biographical or overview information about the faculty member
(varchar(max))</xs:documentation>
      </xs:annotation>
    </xs:element>

        <xs:element name="Appointments">
      <xs:annotation>
        <xs:documentation>Appointments/Positions held at the University</xs:documentation>
      </xs:annotation>
        <xs:complexType>
          <xs:sequence minOccurs="0">
            <xs:element maxOccurs="unbounded" name="appointment">
              <xs:complexType>
                <xs:sequence>
                  <xs:element name="position" type="xs:string">
          <xs:annotation>
            <xs:documentation>Position Title (varchar(max))</xs:documentation>
          </xs:annotation>
        </xs:element>
                  <xs:element name="institution" type="xs:string">
          <xs:annotation>
            <xs:documentation>Name of the Institution (varchar(500))</xs:documentation>
          </xs:annotation>
        </xs:element>
                      <xs:element name="departmentID" type="xs:string">
          <xs:annotation>
```

```
            <xs:documentation>Unique Identifier for the Department within the Institution
(varchar(50))</xs:documentation>
            </xs:annotation>
            </xs:element>
                <xs:element name="department" type="xs:string">
            <xs:annotation>
            <xs:documentation>Name of Department within the Institution (varchar(510))</xs:documentation>
            </xs:annotation>
            </xs:element>
                <xs:element name="startYear" type="xs:string" >
            <xs:annotation>
            <xs:documentation>Start Year of appointment (integer)</xs:documentation>
            </xs:annotation>
            </xs:element>
                <xs:element name="endYear" type="xs:string" >
            <xs:annotation>
            <xs:documentation>End Year of the appointment (integer)</xs:documentation>
            </xs:annotation>
            </xs:element>
                </xs:sequence>
                </xs:complexType>
                </xs:element>
                </xs:sequence>
            </xs:complexType>
            </xs:element>
            <xs:element name="researchKeywords">
             <xs:complexType>
              <xs:sequence minOccurs="0">
               <xs:element maxOccurs="unbounded" name="keyword" type="xs:string" >
            <xs:annotation>
             <xs:documentation>Keywords describing faculty members areas of research and/or research interests
(varchar(250))</xs:documentation>
            </xs:annotation>
            </xs:element>
                </xs:sequence>
                </xs:complexType>
            </xs:element>
             <xs:element name="researchInterests" type="xs:string" >
            <xs:annotation>
             <xs:documentation>Paragraph describing the research interests of the faculty member</xs:documentation>
            </xs:annotation>
            </xs:element>
              <xs:element name="Education" >
            <xs:annotation>
             <xs:documentation>List of educational credentials such as degrees and certifications held by the faculty
member</xs:documentation>
            </xs:annotation>
               <xs:complexType>
                <xs:sequence minOccurs="0">
                 <xs:element maxOccurs="unbounded" name="Degree">
                  <xs:complexType>
                   <xs:sequence>
                    <xs:element name="type" type="xs:string"  >
            <xs:annotation>
             <xs:documentation>Type of Credential, such as BS, MS, PhD, etc (varchar(100))</xs:documentation>
```

```
      </xs:annotation>
      </xs:element>
            <xs:element name="date" type="xs:unsignedShort"  >
       <xs:annotation>
       <xs:documentation>Year credential granted (integer)</xs:documentation>
      </xs:annotation>
      </xs:element>
            <xs:element name="institution" type="xs:string"  >
       <xs:annotation>
       <xs:documentation>Institution granting the credential (varchar(500))</xs:documentation>
      </xs:annotation>
      </xs:element>
            <xs:element name="discipline" type="xs:string" >
       <xs:annotation>
       <xs:documentation>Discipline associated with the credential (varchar(500))</xs:documentation>
      </xs:annotation>
      </xs:element>
          </xs:sequence>
         </xs:complexType>
        </xs:element>
       </xs:sequence>
      </xs:complexType>
     </xs:element>
     <xs:element name="Honors">
   <xs:annotation>
   <xs:documentation>List of honors and awards granted to the faculty member</xs:documentation>
  </xs:annotation>
      <xs:complexType>
       <xs:sequence minOccurs="0">
        <xs:element name="honor">
         <xs:complexType>
          <xs:sequence>
           <xs:element name="title" type="xs:string" >
       <xs:annotation>
       <xs:documentation>Name of the award or honor (varchar(max))</xs:documentation>
      </xs:annotation>
      </xs:element>
            <xs:element name="year" type="xs:unsignedShort" >
       <xs:annotation>
       <xs:documentation>Year the award or honor was granted (integer)</xs:documentation>
      </xs:annotation>
      </xs:element>
            <xs:element name="organization" type="xs:string" >
       <xs:annotation>
       <xs:documentation>Name of the organization that granted the award or honor
(varchar(500))</xs:documentation>
      </xs:annotation>
      </xs:element>
          </xs:sequence>
         </xs:complexType>
        </xs:element>
       </xs:sequence>
      </xs:complexType>
     </xs:element>
     <xs:element name="Publications">
```

```xml
<xs:annotation>
<xs:documentation>List of publication attributed to the faculty member</xs:documentation>
</xs:annotation>
    <xs:complexType>
     <xs:sequence minOccurs="0">
      <xs:element maxOccurs="unbounded" name="publication">
       <xs:complexType>
        <xs:sequence>
         <xs:element name="title" type="xs:string" >
  <xs:annotation>
   <xs:documentation>Title of the article or chapter (varchar(max))</xs:documentation>
  </xs:annotation>
  </xs:element>
         <xs:element name="type" type="xs:string" >
  <xs:annotation>
   <xs:documentation>General Type of Publication</xs:documentation>
  </xs:annotation>
  <xs:simpleType>
    <xs:restriction base="xs:string">
    <xs:enumeration value="Article"/>
    <xs:enumeration value="Chapter"/>
    <xs:enumeration value="Monograph"/>
    <xs:enumeration value="Conference"/>
    <xs:enumeration value="Other Scholarly Work"/>
      <xs:enumeration value="Other"/>
    </xs:restriction>
   </xs:simpleType>
  </xs:element>
         <xs:element name="publicationYear" type="xs:unsignedShort" >
  <xs:annotation>
   <xs:documentation>Publication Year (integer)</xs:documentation>
  </xs:annotation>
  </xs:element>
         <xs:element name="doi" type="xs:string" >
  <xs:annotation>
   <xs:documentation>DOI value associated with publication (varchar(200))</xs:documentation>
  </xs:annotation>
  </xs:element>
         <xs:element name="pmid" type="xs:string" >
  <xs:annotation>
   <xs:documentation>PMID value association with the publication (varchar(200))</xs:documentation>
  </xs:annotation>
  </xs:element>
         <xs:element name="journalTitle" type="xs:string" >
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   <xs:documentation>Title of the Journal in which an article was published (varchar(400))</xs:documentation>
  </xs:annotation>
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  <xs:annotation>
   <xs:documentation>Volume/Issue of the Journal in which the article was published
(varchar(200))</xs:documentation>
  </xs:annotation>
  </xs:element>
         <xs:element name="monographTitle" type="xs:string" >
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        <xs:annotation>
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        <xs:documentation>Semicolon delimited list of authors (listed last name, first initial) associated with the
publication (varchar(max))</xs:documentation>
        </xs:annotation>
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