The MAGIP GIS Mentoring Program Plan

Date: July 22, 2010
Document Manager: Diane Papineau, Montana State Library

Introduction

The MAGIP community has indicated the desire to have a mentoring program. The Mentoring subcommittee has been formed to envision that program. If adopted, the MAGIP GIS Mentoring program would be part of the MAGIP Professional Development Committee.

MAGIP Mentoring Subcommittee (updated July 20, 2010)

- Wendy Thingelstad, Lake County GIS
- Carrie Shockley, City of Bozeman GIS
- Alison Kennedy, Montana State Department of Revenue
- Gerry Daumiller, Montana State Library
- Jason Danielson (Mentoring webmaster), Lewis and Clark County GIS
- Bryant Ralston, ESRI
- Melissa Rivnie, Gallatin County, Clerk and Recorders Office
- Valenijn Hoff, University of Montana, Fire Center
- Diane Papineau (committee chair), Montana State Library

Mentoring Reference Documents/Programs

Several GIS mentoring programs (including ESRI's) are not included in this section because they target mentoring K-12 teachers. This MAGIP mentoring program targets GIS practitioners, not teachers.

- SCORE small business mentoring program: http://www.score.org/index.html
- Bay Area Automated Mapping Association: http://www.baama.org/connections/
- GISCI Mentoring program: http://www.gisci.org/Mentoring_Program/mentoring_program.aspx
Program Objectives

Phase I: To envision a self-sustaining, self-guiding, low maintenance MAGIP GIS Mentoring program for MAGIP Board approval. Ideally, we should have this planning document ready for submission to the MAGIP Board around the April GIS conference. COMPLETED

Phase II (Upon plan approval by the MAGIP Board): To create the materials of the Mentoring program (guides, web pages, etc.) as a prototype. Possible target goal for a prototype of the program for testing would be by the end of 2010.

Phase III (After successful testing of the prototype): To publicize the program inside and outside the MAGIP listserve/member list. Possible target goal for publicizing is spring 2011. Ongoing program maintenance (hopefully just adjustments based on feedback and minimal help from the administrator for ongoing tasks).

Program Goals

1. Assist practitioners with GIS tasks (Help Desk-style of assistance--AKA: "coaching").
2. Assist practitioners with career development (AKA: "mentoring.") We recognize that this goal may overlap with the GISCI mentoring program.
3. Strengthen GIS use and data creation in Montana.
4. Be a visible, effective, and on-going professional development vehicle (could ultimately help to build MAGIP membership as well).
5. Possible feedback mechanism to the Professional Development Committee regarding kinds of training resources MAGIP could offer (conferences, webinars) or web resources and information we should point to from our website.

Program Acceptance

By MAGIP Board approval. A finished and active program could also be submitted to MLIAC for endorsement.

Background/Context

There appear to be two drivers to leverage for a successful mentoring program. The primary drivers are the mentees themselves as the energy that keeps a mentoring program going and self-sustaining ("bottom up"). Their need to learn will drive them to seek help when needed (ideally using a defined process that establishes ongoing mentor/mentee relationships). The secondary driver could be MAGIP "best practices" ("top down"). This is a theoretical driver in that data generated, used, and shared should meet certain standards. Mentors can assist with ensuring that best practices are known and used. This secondary driver probably would require active "driving" on the part of GIS community leaders. The MAGIP GIS Mentoring program could be an opportunity for GIS leadership to get best practices out beyond MAGIP leadership and the state GIO to mentors and mentees who are actively involved in spatial data creation and use statewide.

A mentoring program can be differentiated from the listserv and discussion forums on the new website in that a mentoring rapport would be a relationship of some duration and commitment and
would be one-to-one, versus a one-to-many relationship with web or email postings that may or may not be answered. The listserv and discussion forums may remain a viable and relied upon part of mentoring outside the formal program, assisting folks who do not have mentors or as a way to get help outside of their mentor/mentee relationship. If the subcommittee does not come up with a mentoring program that the Board approves, these web tools will probably remain the best way to get this type of help outside of personal networking that members do on their own.

MAGIP will not act as a broker matching mentors and mentees. However, there may be MAGIP SIGs (i.e. Local Government) that may take action to leverage the mentoring program and match GIS practitioners in a mentoring relationship. Any brokering undertaken by a SIG will remain the responsibility of the SIGs. The relationships formed can be between those of differing skill levels in particular areas of GIS work. The program elements could also be leveraged for peer-to-peer networking to share unique expertise when the need arises. Connections between practitioners could be made based on topic/work task, by convenience of location, and/or because their personal styles match.

**Assumptions**

1. There is a need for mentoring within the Montana's GIS community.
2. MAGIP can support (funding, staffing) some level of effort to maintain a program even though it is designed to be as self-sustaining and low maintenance as possible.
3. The program can be successful on its own, but should be considered in the context of other professional development opportunities such as:
   a. GIS training/coursework.
   b. MAGIP professional development activities (conferences, tech sessions, MAGIP listserv, discussion forums).
   c. GISCI Mentoring program. However, for the GISCI program, a mentee must be a student or young professional; it is not for established practitioners.
      **Note:** GISCI plays an active roll as a mentor/mentee relationship broker (which our program will not do), probably because there are GISP points involved for mentors. Per Sheila (executive director), their mentoring program is not as active as they'd like it to be.
4. The mentoring program will be used, advertised, and perceived to be valuable.
5. Mentors can be of many different skill levels properly paired with mentees. Mentors are not restricted to be just the senior members of MAGIP.
Constraints/Requirements

1. Mentors and Mentees must be MAGIP members.
2. The Program must be self-sustaining and self-guiding to facilitate forming the mentor/mentee relationship. (The only management might be someone periodically checking with mentors to see how it's going, putting out periodic calls through the MAGIP listserv to advertise the program, request mentors make themselves available, checking whether mentees are MAGIP members). Every thing in a mentor program proposal should be weighed against whether it will be self-sustaining, self-guiding, and low maintenance.
3. Mentors can not be so relied upon by mentees that mentors retreat from the program.
4. A mentor/mentee relationship is not replacement for adequate training for the mentee's job. While Help Desk assistance may be part of this, the mentor should guide the mentee to find answers on their own and point them to training resources (Help systems, publications, conferences, online ESRI training, etc.) when that is what the mentee really needs. By observing needs through time, mentors may be able to identify conference tracks, webinars that MAGIP can find, produce, or sponsor, as well as web sites (i.e. ESRI training, etc.) to list on our MAGIP site.

Risks

1. Creating the program and it not being used.
2. Creating a program and it not getting enough mentors.
3. Creating a program and mentors being overwhelmed/burnt out because mentees do not have enough training.
4. Program ultimately requiring staff to maintain it instead of being self-sustaining/self-guiding.
5. Not creating a MAGIP GIS Mentoring program:
   a. Poor GIS products reflect poorly on GIS technology and what it can do to assist decision making and communicating complex information.
   b. Leaves room for poorly-created GIS products to be entered into workflows, submitted to decision makers, and reused, diminishing the effectiveness of our discipline.
   c. Additional weight on the BMSC staff. (This implies that a significant portion of the anticipated mentoring is with local governments who partner with the BMSC.)
   d. Our comrades suffer.
   e. MAGIP misses an opportunity to support professional development, which is one of the organization's goals and keeps it relevant to its members.

Deliverables (subcommittee members to take on assignments)

Phase I (Active Phase)

Program plan and brief proposal for Board approval (Diane) COMPLETED
**Phase II**

Create materials:
1. Web pages/system documents
   a. Program description including identifying and describing a kind of "ladder" of experience levels so that GIS folks with varying levels of experience see themselves as possible mentors. **BRYANT**
   b. List of mentors, their strengths, current availability or limitations (count of mentees they’ll take on, communication type preferred, more?). **VALENTIJN**
   c. Mentor self-assessment web form with Mentor yes/no checkbox (part of their member profile) for use in setting up a mentor database and list. Each mentor should provide a description of their strengths including software/technical tools skills. Members of all levels will be encouraged to offer time as a mentor to one or more mentees if their schedule permits. **CARRIE**
   d. Mentee self-assessment form (web form for download). This form could be emailed to mentors to help the mentor gauge whether it’s a good fit and to possibly point the mentee to other resources as needed. **MAKE PART OF A BRIEF DISCLAIMER AND/OR IN GUIDE.**
   e. Sample Mentee self-assessment on a web page. **MAKE PART OF A BRIEF DISCLAIMER AND/OR IN GUIDE.**

2. MAGIP GIS Mentoring Guide that outlines what the process steps are to becoming a mentor or mentee as well as what is expected of mentors and mentees. This will include expectations of each party, what is not expected, meeting tips, what the outcome should be (how to recognize success), and how to coordinate with GISCI to ensure that GISP who are MAGIP mentors get recertification points. **DIANE**

3. Parameters for recognizing MVP (outstanding) mentors. **MOVED TO PHASE III**

4. Test plan for program testing. **DIANE**

**Phase III**

After testing and modifications:
1. Recruitment materials to interest mentors that outline the benefits of being a mentor: A) Contributing to GIS professionals in Montana, B) Having a positive impact on data development and data sharing, C) Possible MVP award through MAGIP, D) GISP points? Perhaps any GISPs that are part of a MAGIP program should also register with GISCI if they are mentoring a student or young professional.

2. Collateral/marketing material: publicity to encourage MAGIP membership and participation in the program.

3. Public information: Presence at conferences and meetings (delivering talks/poster, collateral materials, general "buzz" about the mentoring program.), MAGIP listserve messages, Vector articles, mailings, cold calls to mentors.

4. Some kind of vehicle to port ideas out of the mentoring subcommittee/program back to the MAGIP Board and/or to the Professional Development Committee for skill building ideas that are not part of the MAGIP GIS Mentoring program.

5. Parameters for recognizing MVP (outstanding) mentors. **MOVED FROM PHASE II**
Questions, Thoughts, Ideas

1. Will our website have a list of mentors and their profiles/expertise visible to non-members and members alike? Ultimately if we have a program that leverages the database behind the website, this may be really useful. If a member list with details will not be made available for members, the mentoring subcommittee will need to know this as a constraint as they envision a program to propose to the Board.

2. Can we port our discussion board or listserv posts to the ESRI discussion board? How can our "public question system" leverage the ESRI public query system? This is probably outside the mentoring program, but could be considered a Professional Development issue (our first "port" to that committee!).

3. Could a mentee be part of a mentoring partnership for a trial 3-month period after which they buy into being a MAGIP member? Is this necessary considering the low membership rate (especially if there is a student rate offered).

4. Perhaps mentor workshops or sessions to train mentors should be devised and offered at tech sessions (or perhaps just the Intermountain conference). If yes, this would fall under the Professional Development committee.

5. Perhaps this subcommittee should take responsibility regarding offering WebEx training to facilitate desktop demonstrations between mentors/mentees. Other mentoring tools? Perhaps we wait to see if this is needed until a later phase?

6. Should a mentoring MVP award extend to folks who answer questions on the listserv or discussion forums? If yes, who monitors this?

7. Should the mentoring program identify levels of skills? This may be helpful to the program to illustrate that the same person can both mentor someone while being mentored by someone else. The Intermountain conference committee struggled with the idea of identifying levels of skills for classifying sessions and ultimately abandoned the idea because it is so subjective.
8. From the New to GIS social at the Intermountain GIS Conference, April 2010. The brainstorming related to the mentoring program generated the following ideas:

<table>
<thead>
<tr>
<th>Idea</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group mentors by theme (use a check box on a group of themes on the website)</td>
<td>Attempting to build into the web form on mentor profile</td>
</tr>
<tr>
<td>Perhaps also use subcategories of experience</td>
<td>????</td>
</tr>
<tr>
<td>Have a way to query these subsets and the mentors that have self-identified to these themes</td>
<td>Attempting to build this into query options</td>
</tr>
<tr>
<td>More description for (of?) the mentors</td>
<td>Unclear</td>
</tr>
<tr>
<td>Outreach for mentees:</td>
<td>&quot;Schools&quot; entry Unclear</td>
</tr>
<tr>
<td>- Schools (different schools of training)</td>
<td></td>
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<tr>
<td>- local governments</td>
<td></td>
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<tr>
<td>- agriculture</td>
<td></td>
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<tr>
<td>- Montana Association of Counties (MACo)</td>
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<tr>
<td>- Users who are not GIS specialists like emergency services personnel and commissioners</td>
<td></td>
</tr>
<tr>
<td>Raise awareness</td>
<td>?</td>
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<tr>
<td>Mechanism to share entry level jobs in GIS</td>
<td>Does our site have a jobs board?</td>
</tr>
<tr>
<td>Create a New to GIS web forum</td>
<td>Could do this right now!!</td>
</tr>
<tr>
<td>Create awards for participation</td>
<td>Delay to Phase III</td>
</tr>
<tr>
<td>Create a list of the top ten questions that may be asked of you at an interview</td>
<td></td>
</tr>
<tr>
<td>Contact list of places to drop off a resume</td>
<td></td>
</tr>
<tr>
<td>List of frequently asked questions on the site</td>
<td>?</td>
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</tbody>
</table>
Proposed Mentoring Process (see also schematic at end of document)

a. Mentors who choose to participate register themselves on the MAGIP website, which may be as simple as setting a checkbox on their profile.
b. Mentors completes a self-assessment (or elaborates on their profile page: TBD) regarding their experience level, specialization, and some info about availability (possibly post a photo).
c. Mentees become MAGIP member or confirm status on the MAGIP website. If the mentee is not a member, he/she can not log in to the site and will not be able to access portions of this self-sustaining MAGIP GIS Mentoring program. We're hoping that whether a mentee can log in will be a critical filter to ensure that mentees are members at the start.
d. Mentees complete a self-assessment to determine the kind of mentor and exchanges they need (i.e. is it a long term rapport, short term for a particular project, for a type of job like rural addressing or hydrography data development). The self-assessment form may ask them to research and identify the kinds of training they may need to help them plan for training too, and differentiate between training and mentoring. **TEAM CHOSE AGAINST REQUIRING THIS**
e. Mentee reviews list of mentors and selects mentor(s) to request.
f. Mentee submits self-assessment form to mentor(s) via email, requesting consideration as a mentee.
g. Mentor reviews the mentee's self-assessment and chooses whether to enter the relationship. If accepted, the Mentor A) notifies MAGIP administrator of the pairing (marketing for mentor program, confirmation of MAGIP membership, etc). B) notifies the mentee, and C) updates their status on their profile (is mentoring this person, is still available, not available, can take one more, etc.).
h. Begin mentoring. (First meeting: build rapport, histories, expectations/boundaries, pattern/method of assistance, etc.). The MAGIP GIS Mentoring Guide will assist with this process.
i. The MAGIP Administrator will periodically check in with mentors to confirm that mentees are still MAGIP members and to gather other information like count of mentees for marketing purposes.
j. Relationship must be renewed every 6 months by the mentee through a web based process (TBD). We hope the website can automatically generate reminder messages to mentee and mentor. This assures that the rapport stays current and that all mentees are still MAGIP members.
k. Professional Development Committee initiates periodic mentor conference calls among just mentors (and mentor conference calls with just mentees) to summarize and share knowledge about how the program is working (successes, difficulties), common issues that indicate training that MAGIP may offer or additional resources to the website. Ask what it's like to be a mentor or mentee. Inquire about outstanding mentors and mentees.
l. Professional Development committee assess program in 6 months during the initial year of the program to see if the mentoring program is formed well. Mentor and Mentee each complete a confidential evaluation that asks: What did you learn? New software? New processes? Problem areas in the mentoring process?
m. Professional Development committee chair monitors the mentor/mentee relationships that are active to look for MVPs (mentors) and some kind of outstanding mentee (professional development growth) to be recognized by MAGIP.
## Milestones and Schedule—Phase I (COMPLETED)

<table>
<thead>
<tr>
<th>Milestones/Tasks</th>
<th>Planned Completion</th>
<th>Status/Comments/Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review planning document and record your own ideas</td>
<td>Feb 3</td>
<td>(subcommittee)</td>
</tr>
</tbody>
</table>
| Meeting in Helena  
Teleconference details to come | Feb 3 (2 hours somewhere between 10am to 3pm) | - Record brainstorming from everyone (Diane)  
- Discuss a GIS Novice gathering and use of "Ask Me" buttons for the Bozeman Conference (subcommittee) |
| Compile notes and resubmit to subcommittee for review | Feb 8 | Diane |
| Meeting  
Teleconference details to come | Week of March 7 (probably 9th or 10th) | Edit plan as needed.  
Look closely at the Proposed Process and Deliverables section.  
(subcommittee)  
Discuss a day/time to meet during conference.  
Finalize the New to GIS-gathering plan and "Ask Me" buttons for the conference (subcommittee).  
Determine if there is anything else we should do at the conference (i.e. intelligence gathering, polling) |
<p>| Compile notes and resubmit to committee for review | A few days after March meeting | Diane |
| Submit Novice and mentoring conference activities to conference committee | A few days after notes compiling | Diane. Novice gathering info due to conf-committee by 3/15. &quot;Ask Me&quot; buttons info due to conf-committee by 4/1. But buttons will need to be made. |
| Create mentoring ad for conference program and mentoring webpage | April 5 | Wendy and Jason |</p>
<table>
<thead>
<tr>
<th>Milestones/Tasks</th>
<th>Planned Completion</th>
<th>Status/Comments/Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submit plan and proposal to MAGIP Board</td>
<td>April 7</td>
<td>Diane</td>
</tr>
<tr>
<td>Subcommittee meeting during Bozeman Intermountain GIS conference</td>
<td>April 20 pm, 3:30—5:00 pm before New to GIS gathering.</td>
<td>Subcommittee</td>
</tr>
<tr>
<td>New to GIS mixer—during Bozeman Intermountain GIS conference</td>
<td>Tuesday, April 20 5—6 pm before public night.</td>
<td>Subcommittee, a few mentors, new folks gather, network, talk about learning resources; discuss &quot;Ask Me&quot; buttons.</td>
</tr>
</tbody>
</table>

**Milestones and Schedule—Phase II (Active Phase)**

<table>
<thead>
<tr>
<th>Milestones/Tasks</th>
<th>Planned Completion</th>
<th>Status/Comments/Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create materials of the system</td>
<td>September 1, 2010</td>
<td>See Deliverables section</td>
</tr>
<tr>
<td>Formal review of materials by MAGIP Board and select members of the MAGIP community.</td>
<td>October 1 2010</td>
<td></td>
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<tr>
<td>Recruit testers (mentors/mentees)</td>
<td>October 1 2010</td>
<td></td>
</tr>
<tr>
<td>Revise materials based on review comments</td>
<td>November 1, 2010</td>
<td></td>
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</tbody>
</table>
### Milestones and Schedule—Phase III (very rough)

<table>
<thead>
<tr>
<th>Milestones/Tasks</th>
<th>Planned Completion</th>
<th>Status/Comments/Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Funding request?</td>
<td>Would MLIAC funding be appropriate/justifiable?</td>
<td></td>
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<tr>
<td>Recruiting</td>
<td></td>
<td></td>
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<tr>
<td>Marketing</td>
<td></td>
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<tr>
<td>Public information</td>
<td></td>
<td></td>
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<tr>
<td>Follow up evaluation of program</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milestones/Tasks</td>
<td>Planned Completion</td>
<td>Status/Comments/Staff</td>
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<tr>
<td>---------------------------</td>
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<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Maintenance of program</td>
<td></td>
<td>Recruiting, documentation for GISP points, monitor for MVP mentor, maintaining web pages, etc.</td>
</tr>
</tbody>
</table>
Mentors do work here (also members just wanting to network)

Mentees do work here (also members just wanting to network)

Diane Papineau, chair
Mentoring subcommittee
July 21, 2010

Schematic showing proposed web deliverables' connectivity, implying flow of mentor posting and finding process.

**Bold** boxes indicate new pages or modified web content needed.