UWM’s Digital Future
Research Working Group Recommendations

1. Strategic Goal:

Develop more variety and flexibility in choices in digital tools in a transparent process. Large numbers of university faculty and academic staff seek access to a greater variety of digital tools that help them communicate and share information with their colleagues and research collaborators. To assist researchers it is essential to provide discipline-specific information on available digital tools. Technical assistance is both necessary and desirable because researchers have various levels of technical knowledge and ability.

Actions

1.1. Increase the number and choices of intuitive tools

   a. Perform an environmental scan to obtain specific information on tools currently being used to foster communication and information sharing in individual disciplines. Questionnaires, follow-up interviews, etc.

   b. Develop and maintain library of available digital tools and their uses; when procuring these tools, consider accessibility and the potential for making accommodations in the decision-making process.

   c. Explore the campus adoption of widely used "standard" tools such as WordPress, Academia.edu, Google Groups, Drupal, Ning, etc.

   d. Assure that all digital data collection systems optimize responses from all participants, regardless of disability, in order to appropriately sample the targeted population(s).

   e. Develop policies and procedures for common tools that reflect increased flexibility of choice (i.e. a more open process for decision making)

   f. Examine the roles of various governing groups involved in the adoption and review of tool selection: e.g Web Steering Committee, Information Technology Policy Committee.

1.2. Provide comprehensive training and support for technical tools
2. Strategic Goal:

Embed digital future visioning in academic departmental culture. Departments at UWM have not actively articulated visions for how research in their respective academic fields will be changed by the digital future. While there has been substantial disciplinary discussion about how massive data sets, digitally born research and publication, new collaborative possibilities, and cloud-based computing, for examples, are impacting specific fields, departments have not actively considered how emerging tools and fields should change future faculty-line searches. For our academic departments to successfully compete for the best prepared new researchers, they must embrace the opportunities suggested by new research areas and tools (including such broadly different ideas as game-based research to innovative analytics), in order to develop clear plans for how new faculty hires will position departments to make substantial scholarly contributions in the future.

Actions:

2.1. Develop a digital future strategic plan aligning with campus and school/college vision statements within each academic department. This plan should address the distinctive strengths and opportunities posed by ongoing changes in research areas, tools, and practices in the field.

2.2. Expand descriptions for new faculty hires to explicitly engage departmental digital future strategic plans. Digital future planning (in terms of research fields, tools, and practices) needs to become part of proposals for new faculty hires in departments.

3. Strategic Goal:

Include digital futures visioning in promotion and tenure. Current and future researchers at UWM will face an uncertain promotion and tenure landscape without explicit institutional commitments to embrace the emerging fields, tools, and practices (including publication and dissemination) arising out of new technologies. A major effort in this area must be to develop assessment analytics (equivalent to emerging learning analytics) sufficient to mine a broad and complex sweep of data for a sense of scholarly impact appropriate to differing academic fields. With critical trends accelerating in collaborative and cloud-based research and dissemination, UWM must assure that its review and promotion practices acknowledge and reward work in emerging digital contexts.

Actions:

3.1. Revise promotion and tenure policies at the departmental level to value appropriately work which embraces the research areas, tools, and practices (including publication/dissemination) of the digital future.
3.2. Establish rewards for UWM departments, schools, and colleges to encourage collaboration across departments and schools and colleges.

3.3. Develop functional and flexible assessment analytics—especially for digitally born work—to develop an evaluative mechanism for research work appearing in emerging fields using new technologies, tools, and practices.

4. Strategic Goal:
Embrace open access as a research dissemination venue through the work of the campus Taskforce on Open Access and Scholarly Communications. The Open Access Initiative is a new model of scholarly communication which universities, libraries, and authors across the U.S., as well across the globe, are adopting in order to capture the benefits of the digital revolution for the academic community and the public. Research has shown that open access articles have a greater research impact across all disciplines therefore a direct benefit to the individual author as well as other researchers.

Actions:

4.1. Increase digital open access publications on campus

a. Implement a support structure to facilitate participation in open access publishing through financial and staff support

b. Provide digital tools which support online peer review

c. Promote awareness of online publishing opportunities and author’s importance of retention of copyright

4.2. Develop systems of organization across campus which support new federal mandates on open access

a. Implement tools for effective sharing and curation of data

b. Appropriately categorize and classify data and other records to allow for increased accessibility to and transferability of those data, which in turn improves robustness of data management plans for grant proposals

4.3. Ensure that all open access research output is created so as to optimize access to everyone, regardless of ability or impairment. When publishing in an open access venue is not possible, UWM researchers should strive to produce research materials that are widely accessible. For example, material is captioned for multimedia, tables and figures have text equivalents, etc.
5. Strategic goal:

Expand UWM’s research cyberinfrastructure to foster research collaborations and computational an online research.

Actions:

5.1. Establish a research cyber infrastructure governance/steering structure

   a. develop strategic direction
   
   b. provide ongoing oversight
   
   c. champion and facilitate participation and usage

5.2. Enhance staffing for research cyber infrastructure (CI) facilitators

   a. support researchers with ongoing research activities, utilizing appropriate balance of on-premise and “cloud” services
   
   b. provide consultancy services for research proposals

5.3. Establish an accessible research “commons”

   a. support virtual organizations, galleries and virtual world academic spaces.
   
   b. provide virtual collaboration services, e.g., videoconferencing, other online collaboration tools
   
   c. facilitate development of communities of expertise
   
   d. create a repository of research cyber infrastructure capabilities and activities
   
   e. share knowledge via workshops, seminars and brown bags etc.

5.4. Enhance/develop digital resources

   a. enhance existing high-performance compute cluster service
   
   b. develop skills, knowledge and facilitation support for “cloud” research services
   
   c. develop data visualization services
   
   d. coordinate data center facility usage, support and enhancement
5.5. Develop research data management processes, support, services

5.6. Continue to upgrade/enhance high-speed network connectivity as required