

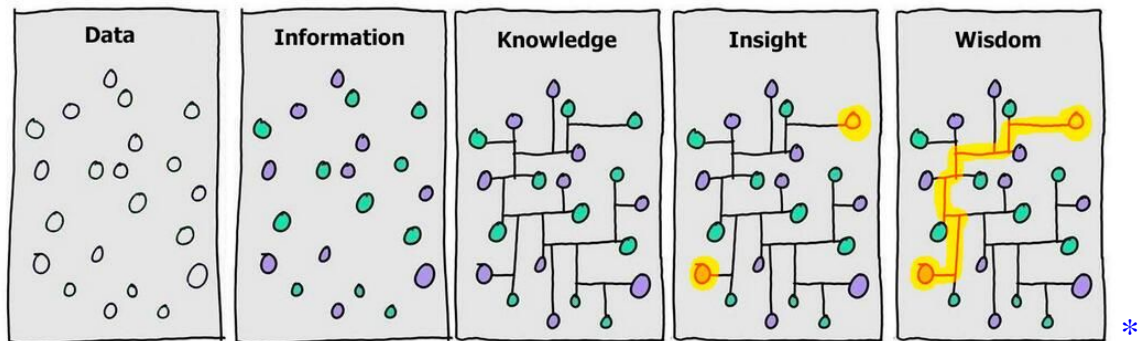
DAMS Research Group Policies

✉ ryus@umbc.edu

📄 <https://umbc.webex.com/meet/ryus>

🏠 <https://robertoyus.com>

Office Hours: By Appointment



Welcome to the DAMS Group!

The DAMS Group aims to:

1. Bridge the gap that exists between raw data (e.g., data captured by sensors) and semantically meaningful data that is easily understood by people (e.g., inferences extracted from sensor observations).
2. Design innovative data management solutions to automate the translation of low-level data to higher-level insights.
3. Incorporate semantics and privacy-awareness to data management to design smarter and more responsible systems.
4. Deal with upcoming challenges in data management in the context of the Internet of Things.
5. Develop prototypes of the approaches/systems designed as part of the research tasks and deploy them in the real world.

In the following you can find the DAMS lab's policies[†]. These policies are essential to the correct functioning of the group and must be followed by every member. As a new member, please read them carefully and thoroughly.

*Illustration by David Sommerville based on the original by Hugh McLeod.

[†]Updated: November 1, 2021. Inspired by ATOMS Lab policies.

Working hours, productivity, and time off

- Grad school is not a sprint. It's not even a marathon; it's a quest. Pace yourself, take care of yourself, brace for the unexpected.
- Track your time! How much time do you spend each week 1) reading papers, 2) writing, 3) attending meetings, 4) attending class and working on homework, 5) doing TA responsibilities, 6) responding to emails, and 7) doing research on each of your projects (this means writing code, setting up, starting, and analyzing results, and making figures)? Keeping track of the time you spend each day and each week is the first step to identify ways to improve your time management.
- I recommend [Clockify](#), a free online tool for tracking your time. This can make electronic time sheets easier for group members paid by the hour, and also as a general productivity tool for everyone to use, myself included. Your future employer in industry, if that is your career path, may use a tool like this to manage your projects. For example, you may be assigned 50% to Project A, 30% to Client B, and 20% to personal projects, and you would be expected to distribute your time accordingly.
- During COVID-19, everyone is expected to work from home. Help keep the campus safer for everyone who cannot work from home as easily as we can.
- All female researchers are entitled to two days of leave when they are on their periods. You don't have to take them if you don't want to, but they are there for you. You don't have to explain it to me or anyone else, but you can just go and rest at home.

Communication

Slack

Please use [Slack](#), especially when discussing research projects! It enables natural organization around topics, and keeps your inbox from cluttering. It also helps new people to get up to speed on projects, since they can review all prior correspondence. This also means that *you should please minimize communication through email*.

Slack is a great way to organize group communications and collaborate. This may feel like a mix of asynchronous communication (like emails) and synchronous communication (like instant messaging), and in many ways, it's a platform that handles both with ease.

However, I want to set clear expectations - this should be primarily viewed as a medium for asynchronous communication. If you receive a message, you are neither obligated to read nor to respond immediately (and you shouldn't expect this when you're sending, too). Of course, if you happen to be online at the same time as another person and you enjoy a quick back-and-forth, that's wonderful, but the expectation should not be that you are constantly connected. I also encourage you to "batch" your emails and messages into certain times of day, so at other times of day, you can more easily focus when you want to dig deep in writing code or preparing a manuscript or reading the literature.

Feel free to use this tool how you prefer. Please know that even when I installed Slack on my phone, if I'm away from my computer, I might not see your messages (especially after work hours).

Weekly reports

All group members are to prepare brief, weekly reports on their research progress, and share them with Prof. Yus via the [Notion](#) platform. The report should explain in a few lines: 1) What were your goals for the week?; 2) What did you achieve?; 3) What complexities are you facing that might require help?; and 4) What are your goals for the following week?. When describing goals remember to be precise and concise since this will help you in knowing exactly what to do. Describing a goal as “Read *XYZ* paper” or “Code algorithm *foo* to compute *bar*” or “Model the features of a sensor in a smart home” is much better than just stating “Read papers...” or “Code...” or “Work on the model...”.

Coding Languages

In the DAMS lab, we use SQL (databases), SPARQL (knowledge graphs), and Java / Python / HTML / Javascript to develop our research ideas and research prototypes. However, what the right tool (e.g., programming language) for the problem would be will be analyzed case-by-case. Remember the “[Law of the instrument](#)”: even if we have a hammer not everything should look like a nail. Manuscripts must be typeset in \LaTeX prior to submission – get started with \LaTeX on [Overleaf](#).

Group calendar

We have a Google calendar for the group. It includes group meetings, open research slots (that you can book to have a meeting with Prof. Yus), deadlines of conferences/journals where we usually publish papers, and any other event related to the group. This is a collaborative tool that we all maintain. You can “book” an open research slot by editing the specific event and adding your name to it. Remember that a research slot is open if it doesn't have already the name of another student on it. I expect you to also add events in the calendar for upcoming and interesting deadlines of conferences (e.g., VLDB, SIGMOD, SenSys, BuildSys, Percom, ISWC, ESWC, etc.) if they are not already there.

Authorship

Authorship and order of authors for each manuscript will be determined by Prof. Yus and any additional Principle Investigators involved in the work. Authorship is earned by someone who significantly contributes to the project (e.g., conceives of the project, designs solution, performs simulations or experiments and analyzes results, writes the paper). All authors must read, proof-read, and sign off on the final version of the manuscript.

Group meetings

Please send materials the night before

This makes meetings much more efficient, because reading, learning, and reviewing can be done individually, and group time can be spent discussing and collaborating.

Ask questions

The “price of admission” to a group meeting is that you ask one question. This helps you learn, and it helps the presenter understand how to present better. By doing this, you’ll also gain valuable practice in preparing and asking questions of presenters. This will become helpful when attending conferences and listening to talks outside the group. Indeed, some questions are sillier than others, and this is something you’ll learn with practice and observation. But don’t worry about it – the DAMS Group is a safe space to ask anything, especially considering the diverse areas of expertise of the people in the group.

Roles

These roles rotate among group members. Details TBA.

- Presenter
- Note-taker
- Doughnuts/refreshments provider (once meetings are in-person)

Virtual Lab Notebook

All group members are expected to keep an electronic lab notebook (and probably with a backup or hosted on the cloud). This is a daily record of the research work that you do. It also includes your notes from our meetings, feedback that you got in a group meeting, etc. Why is this important? Many reasons! If you use a “non-electronic” version (e.g., pieces of paper or a notebook) you might have issues finding them later or indexing them. But be careful also with having an electronic lab notebook without backups. As a computer scientist you probably know by now that unexpected things can happen: Your laptop might stop working, you might accidentally delete some data/code... Take notes (electronically and with a backup). Your future self will thank you.

ELN Software

After surveying several electronic lab notebook (ELN) options, we recommend Notion for maintaining your ELN. Other options include MS OneNote or [GroupArchives](#), to which UMBC has subscribed.

Data & Code Management Plan

Code and data are important and it is your responsibility to make sure that nothing is lost. Have a plan to make sure that your code and data are safe and accessible to other members of the group. We all work on related topics in the group so, we all benefit from utilizing each other code/data (with appropriate acknowledgement and after requesting access to it).

GitHub

The DAMS Group has a GitHub account for the group to host public repositories for the software we create, as well as for each paper the group publishes. Learn more about how to use GitHub in [this tutorial](#). This is also the location for our group website, which is hosted through GitHub pages.

Unless otherwise specified, prior to manuscript acceptance all files needed to reproduce the results will be made available to the public via a GitHub repository in the DAMS Group GitHub. In some situations that might occur after the paper has been accepted (e.g., in case of a double blind review). But an accepted paper will always have a link to the public GitHub repository that hosts its code and data[‡].

Backups

Back up your data. Not much could be more tragic than losing several months of manuscript writing, simulation results, or code modifications. Each DAMS Group member is responsible for maintaining their own data. We've identified Google Drive, as the preferred cloud storage solution for backing up data. We'll also invest in physical backups, as well, in the form of external hard drives.

Ethical management of data

In some situations you might end up using data captured about individuals in your research. You must follow a responsible code of conduct always but especially in such situations.

Professional development

Social media

Group members should create and maintain a professional social media presence. This can be a tool to support your ongoing networking activities and your future job search. Here's a [great article](#) on how to take your LinkedIn profile to the next level (tailored to grad students in STEM).

[‡]Of course, if the data is sensitive/private and can potentially impact individual's privacy, the data will be processed (e.g., anonymized or used to create a synthetic version of it without real individual's data) before making it public.

Networking

Professional networking can sound intimidating, but it helps to frame it as “making professional friends”. This is so important, that I require group members to participate in at least one informational interview each semester, starting with their first semester. Practicing this, and starting early, will help develop the skills you need to build your network later, and also get your professional network jump started. Here’s a [nice article](#) on what an informational interview is, and how you should prepare for it.

Netiquette

Treat others as you would like to be treated.

Remember that you’re communicating with a real person, and not merely a computer screen. Follow the same standards of behavior online that you follow in real life. As professional interactions increasingly become online, learning to be professional online is a critical career skill – the person behind the other screen will be your colleague, your boss, or your customer.

- Use respectful language
- Use normal capitalization, grammar, and spelling for professional communication.
 - Mistakes make you look bad! Spell-checkers and tools like [Grammarly](#) can catch distracting errors.
- Remember that tone of voice and gestures are not communicated through text. Especially refrain from sarcasm, which can be easily misinterpreted, and which usually conveys an unprofessional attitude.
 - Emoticons can be helpful and fun, but less-common ones are ambiguous, so know your audience. Different generations have different standards.
- Respect other people’s time
 - Use online calendars and tools like [WhenToMeet](#) to coordinate online meetings.
 - Make an agenda, start on time, and end on time.
 - Respond to emails promptly; within 48 hours is usually acceptable. A short note “This will take me some time, I’ll get back to you by X date” helps set expectations.
- Video chat like a pro
 - Become fluent in video conferencing software, so you don’t contribute to any technical issues.
 - Mute your mic when you’re not talking.
 - Only use video when everyone’s bandwidth can handle it.
- Secure your workstation

- Never share personal user ID or password information.
- Don't use simple passwords, and don't reuse passwords. Password managers like [Last-
Pass](#) are great tools for generating and storing highly secure, random passwords.