This integrated figure pulls together three of the four core components of metaliteracy: the learning domains, the learner characteristics and the learner roles. Being able to see these key elements linked together in one graphic highlights the interrelationships among them. Consider the rings of the diagram as able to spin, so that the combinations of domains, roles and characteristics are changeable, as they are in real life. These essential elements are reinforced by the goals and learning objectives that constitute the fourth component of the metaliteracy framework. Reflect on the following guiding questions connected to each learning domain, characteristic, and learner role.

**Key:**
- M = Metacognitive
- C = Cognitive
- B = Behavioral
- A = Affective
Learning Domains

Metacognitive

- Do you regularly monitor your thinking about your learning?
- Do you determine how you can address gaps in what you need to know?
- Do you know your strengths and weaknesses well enough to leverage them?
- What assumptions do you make about your own learning? Are those assumptions accurate?
- Do you reflect on how you learn best? Do you implement strategies to improve your learning?
- Have you identified your knowledge strengths, ones you could teach to others?
- How does thinking about your own thinking process provide you with insights about how to take charge of your learning goals and objectives?

Cognitive

- Do you use your intelligence productively?
- What have you learned by collaborating with individuals and teams?
- What have you taught others by working collaboratively?
- How do you produce knowledge as an individual and in social settings?
- Do you produce information or knowledge? What’s the difference?

Behavioral

- Do you work well in groups?
- Are you willing to take on a task that no one else wants to do?
- How do you build on your existing skills and knowledge in collaborative settings?
- Do you take enough time to think things through before jumping into a task or project?
- Do you follow through with the commitments you make?
- Do you share your knowledge by teaching others?

Affective

- Are you enthusiastic about new learning and new situations?
- If your attitude is negative, can you determine why? What do you need to do to feel more enthusiastic?
• Do you procrastinate because you worry you won’t succeed?
• Do you allow yourself to get excited about things you are doing?
• Do you have an open mind?
• How do you motivate yourself to build upon what you already know?

Metaliterate Learner Characteristics

Productive

• Are you confident producing and sharing knowledge in social settings? (A) How do you gain new knowledge by working in social settings? (C)
• What strengths do you bring to a new project? (M) How do you teach others what you know by working collaboratively? (C)
• Do you enjoy learning new things? (M) How do you learn by building something new? (C) How does producing information impact your knowledge? (C)
• Do you know how to use tools for producing information effectively? How do you delve into technology platforms to better understand them? (B)
• How do you feel about trying new technologies? Are you comfortable working with technology to produce information? How do you overcome the anxieties you may feel about using a new form of technology? How do you share your enthusiasm for using technology to create something new? (A)
• Do you protect your personal privacy and secure your information in social information environments? (B)
• Do you always act ethically and responsibly when producing and sharing information? Do you evaluate information and sources before believing what you’re reading, seeing or hearing? Do you confirm the accuracy of information before sharing it with others? (B)
• Do you give credit to others when referring to or integrating their work in your creations? (B)
• Do you assign open licenses to your work through the Creative Commons? (B) How do you decide what type of license to assign to your work? (C)

Collaborative

• Do you enter into collaborative initiatives with excitement about what you can accomplish? Do you start with an open mind? (A)
• Do you work well in groups? What do you volunteer to do? Are you willing to take on a task that no one else wants to do? (B) Do you feel confident when working with others or do you question your abilities in this area? (A)
When working collaboratively do you consider the gaps in your team's vision or efforts and consider what you might contribute? (M) Are you willing to consider suggestions you might normally dismiss? (A)

How do you build on your existing skills in collaborative settings? How do you adjust your ways of working as an individual when working in teams? (B,M)

How does working with others impact your own thinking? How do you know when your knowledge has changed or expanded in a group setting? What are your learning goals for working with teammates? How do you know when you've learned something new? (M)

What have you learned by collaborating with individuals and teams? What have you taught others by working collaboratively? (C)

Consider a beneficial collaboration in which you've participated. (B) What made the collaboration successful? (M) What do you know now that you did not know before collaborating? (C) Now consider a less successful collaborative experience. What could have made it more successful? (M)

Participatory

What online communities do you participate in? Do you tend to actively engage in these communities or do you observe the conversation from the background? (B) What do you learn about yourself when you reflect on how you participate in communities? (M)

How do you feel about contributing your ideas to community settings? (A) Do you work well in group settings? Do you tend to volunteer? (B) Do you feel a sense of empowerment when sharing your ideas? (A)

What do you learn when contributing your ideas to communities? What do you learn from others when participating in a community? What do you know now that you did not know prior to communicating with other participants in social settings? (C)

How do you gain new knowledge in social information environments? How does your thinking develop or change when actively engaging with new ideas? (C)

What is your attitude when encountering ideas and perspectives that are different from your own? Are you open, accepting, and respectful with people who may have different perspectives than you do? (A) Do you actively seek out ideas and perspectives that are different from your own? (B)

Adaptable

Is your attitude toward new situations negative or positive? Can you determine why? Do you tend to have a defeatist attitude or do you have faith in yourself that you can accomplish new things? (A)
• Do you like to learn new things? Do you get flustered or tired of learning new things? (A)
• How do you accomplish a specific goal? If you need assistance, do you know who to ask or where to look? (M)
• Do you think about what impediments (internal or external) you will need to overcome in order to succeed in a task or project? (M) How do you move from planning to implementation? (B)
• How do you apply what you’ve learned from one situation or setting to another? How do you build on your existing knowledge by applying it in a new setting? (B)
• What do you learn when you demonstrate the ability to adapt to new settings and new situations? (C)
• Do you procrastinate because you worry you won't succeed? How do you motivate yourself to learn something new? (A)
• How do you adapt to new technologies? Do you feel resentful of yet more new technology to learn? Are you curious about how technologies work to support you in evaluating, producing, and sharing information? (A)
• What have you learned about technology by trying out new systems and platforms? (C)
• Are you open to trying new modes and mediums? (A) Do you think about what you need to learn about the new modes and mediums you are expected to work in? (M) Do you think about what you already know that might make it easier? (M)
• How do you gain new knowledge by interacting with others in interactive social environments? What have you learned about yourself when adjusting to new social information environments? (C)
• What is the best way to share what you know with others while being open to their insights and ideas? (B)
• Are you inspired by other uses you could make of a particular mode or medium of expression? (A)

Reflective
• What is your attitude about being reflective? Are you open to reflecting on your own thinking process? Do you feel that you are in control of your own learning? (A)
• Do you feel empowered to take ownership of your learning? (A) How do you show that you are in charge of your own learning? (C)
• Do you take time to reflect on your learning? (M) What is your process for reflecting on your learning? (B) How do you demonstrate that you are actively reflecting on your thinking and learning? (M)

• What insights do you gain about yourself by reflecting on your learning? (M)

• Do you assess your learning at different points of a project? Do you assess your learning after completing a learning activity or project? How do you assess the contributions of your co-producers in a collaborative project? (M)

• When starting a new project, do you reflect on what you know and don't know? How do you apply and build upon the skills you've gained? (B)

• How do you demonstrate what you’ve learned after reflecting on my thoughts and actions? How do you demonstrate the goals and objectives that you’ve achieved? (C)

• Do you set goals for your learning? How do you strive toward and meet the learning goals you have set for yourself? (B)

• How do you demonstrate what you’ve learned after reflecting on my thoughts and actions? How do you demonstrate the goals and objectives that you’ve achieved? (C)

• Do you set goals for your learning? How do you strive toward and meet the learning goals you have set for yourself? (B)

• How do you turn theoretical ideas or concepts into practice? (C)

Informed

• What attitudes do you bring to the evaluation of content and information sources? (A)
  Do you reflect on your feelings and beliefs when consuming information? (M) How does reflection support you in being in charge of your emotional responses to information? (M)

• Do you check your affective responses to information with metacognitive and cognitive processes? Do you reflect on your own biases when evaluating information? (A, M)

• Are you willing to question your feelings and beliefs while challenging your own biases? (A) How do you step outside of your own feelings, beliefs, and biases to look at information objectively? (A) How does reflection support you in challenging your existing feelings and beliefs about information and information sources? (M)

• How do you effectively embark upon a process of objective research to expand your knowledge? (C) How do your feelings and beliefs motivate you to conduct objective research and then how do you stay objective as you conduct a critical inquiry? (A)

• Do you reflect on the way you think about individuals and communities who may have different perspectives from your own? (M) How do diverse perspectives and viewpoints impact your thinking? (C)

• What knowledge do you gain when consuming and producing information that is accurate and verifiable? (C)

• Do you evaluate information for accuracy and reliability before sharing it? Do you have a consistent process for evaluating information? How do you demonstrate that the information you present is truthful and trusted? (C, B)
• What critical questions do you ask about the media platforms that you engage with? What do you learn when you consume, produce, and share information through technology? (C)

• Do you apply online community standards for engaging with, producing, and sharing information? (B)

Open

• Are you open to insights and perspectives that are different from your own? Do you challenge your own assumptions to gain new ideas? (A) What do you learn by reflecting on viewpoints that are different from your own? (M)

• How do you show that you are willing to work with other people in collaborative settings? (B) How do you demonstrate openness to others who have different viewpoints and experiences from your own? (B) What knowledge do you gain when collaborating with other people? (C)

• Do you have empathy for people within and outside your community? (A) How do you demonstrate empathy for other people in community settings? (B)

• Are you motivated to learn new things by conducting objective research? (A)

• Do you willingly try out different forms of technology that may be new to you? (B)

• Are you willing to think outside the box and challenge the status quo? (A) What do you learn when you are receptive to new insights and ideas? (C)

• Do you reflect on your abilities in an honest and supportive way while motivating yourself to continue learning? What have you learned about yourself when being transparent about what you already know and what you need to learn more about? (C, M)

• Do you reflect on your ability to respect and support different points of view? Are you as open-minded about diverse perspectives as you think you are? What insights do you gain about yourself by reflecting on your ability to consider multiple perspectives? (C, M)

• When sharing and producing information, are you transparent in how you gained new insights? (A) Do you document the sources of information that influence your own ideas? (B)

• Are your contributions to social settings available for other people to access and use for their own learning? How do you assign an open license to your creative work to share with others? (B, C)

• What do you learn when sharing your knowledge and teaching other people in social settings? (C)
• What do you learn about yourself and your community when actively participating in a responsible way? (C)

Civic-Minded

• Do you reflect on your responsibilities as a contributor to social information environments? (M) How do you make sure your actions in social settings are always ethical and responsible? (B)

• Do you feel a sense of trust in the communities you're a part of? (A) Do you contribute to and follow the standards for engagement defined by these communities? (B)

• How do you build trust with other participants in social information environments? (B) Do you give thought to what it takes to build a trusting community? (M) What principles and practices do you value in the communities you belong to? (A)

• When sharing information on social media, do you first check the source of the information? (B) How do you decide if the information is trustworthy? (C) Do you check your emotions and biases before sharing? (A)

• Do the communities you are a part of welcome diverse viewpoints? How do you engage in meaningful and respectful dialogue with others whose viewpoints are different from your own? (B,A)
Metaliterate Learner Roles

Collaborator

- Have you worked on a project with a team of friends, colleagues, or peers to achieve a specific set of goals or objectives? (B) What did you learn from everyone else and what did you teach them? (C)

- Have you ever been part of a sports team, or partnered with colleagues at work or school to achieve a common goal? (B) Have you reflected on the strategies developed to be successful and to have fun while learning something new? (M)

- Did you ever get together with friends to play a board game, online game, or virtual game to achieve a set of goals? (B) What are the specific strategies that your team developed to successfully win the game? (B,C) How did you work together to define and achieve a set of goals? (B) Have you ever reflected on how we learn from each other and teach others in both informal and formal settings? (M)

- Reflect on how you engage with people online and via social media. Are these experiences individual and/or collaborative? (B,M) How have you ever been a collaborator online? How have you worked with others to achieve goals, create a virtual experience or make something, such as a collaborative image or multimedia presentation, and share information or knowledge? (B) What were some of the challenges encountered as part of this collaboration? What were some of the rewards? (A,B)

- How is an individual selfie different from a group selfie? How is an individual post different from an online thread or conversation? (C) How do the results of teamwork and collaboration change with input from different and varied voices? (C,M)

- How are your collaborations and experiences with teamwork similar and/or different in your online and offline experiences? (B,M) What are the advantages and disadvantages of collaborating online, offline, and/or blending the two approaches? (A,C,M)

- What are some of the challenges of collaborating with others either in person or online? What are the challenges that stand in the way of effective collaboration? (A,C,M) How might these challenges be resolved to promote effective and productive partnerships? (A,C)

Producer

- Have you organized a collection of resources on a particular topic? Do you curate content by using bookmarking tools or platforms? Have you shared this curated content, using social platforms such as Pinterest, to help others find information on the topic? Have you added your own annotations to curated resources to guide users on the value and quality of the content? (B)
Have you compiled diverse outside resources to create something new? (B) Have you provided appropriate attribution to the original content creators? (B,C)

Have you remixed or modified existing content into a new format, being mindful of permissions granted by the owner of the original content? For example, have you created a collage, slideshow, or video that incorporates images, music, or text from other creators? (B,C)

Do you produce and share your own user-generated content such as selfies, digital images, video, or multimedia? (B) Is this information developed informally for fun or have you also created and distributed your own content in more formal ways to tell a story, offer advice, support a research project, or teach peers and colleagues? (B,C)

Have you reflected on the intersection of informal and formal learning and the ways that your own content may be valuable to others by demonstrating how knowledge is produced and shared online? (C,M)

When sharing your own content online, do you consider who can access it, whether it is private and/or public, and if the web site you are using will share it with others beyond your own network of friends? Have you read the privacy policies of the website you are using to create and distribute your content? (B,C)

Are you familiar with the Creative Commons for searching and sharing openly licensed content? Have you reviewed the different kinds of Creative Commons licenses for sharing and attributing user-generated content? (B,C)

Do you tend to refrain from producing content due to concerns about how it will be received by others? (A,B) Have you reflected on the potential benefits for others if you share this content? (M) Have you consulted with others to get their opinions on revising the content to address concerns? (A,B)

Publisher

Do you consider yourself a publisher of information, as distinct from an author or producer of information? What does being a publisher mean to you? (C)

Where have you published information? Consider online platforms as well as traditional venues. (B) How did it make you feel to have your work published? (A)

Have you ever curated or compiled information for an audience? Have you ever aggregated digital information such as links to resources for an audience via social media? (B) Is this publishing? (C)

Has the information you’ve published gone through an editorial review process? Who is doing the review and what implications does that have? (C)

How do you make decisions about what information to publish? (B) Have you considered the benefits or ramifications if the information ends up being shared more broadly than you intended? (C)
• Do you reflect on the way that publishing platforms and venues work? (M) Are you aware of the Terms of Service when publishing your content digitally? (M,C)

• Do you think about how your content will be presented visually when published in a digital platform? (M) Have you thought about the audience for your work when publishing online? (M,C).

• When publishing your content, have you thought about whether or not to license that work through the Creative Commons? (M,C,B)

• Have you ever published something you were especially proud of? Have you ever published something you later regretted? (A)

• Have you ever created a blog or tumblr where other people contribute? (B) Do you have a review process that you have used or created? How do you decide which contributions to include? (C)

• Have you ever been an editor for a school newspaper, magazine, yearbook, or other publication? (B)

• Have you ever self-published your work? (B) What elements might be missing when self-publishing? (C) What are the advantages and disadvantages of self-publishing? (C)

• Do technology platforms (such as Facebook) impact how published information is understood? (C)

Researcher

• Have you learned to analyze information needs, determining the following:
  o The type of information you need, and whether it needs to be scholarly
  o The scope and depth of the information you need
  o The viewpoints that might be represented on this topic. (C)

• Have you become proficient in determining appropriate information sources and tools, considering:
  o Who might be writing about this topic?
  o What organizations might be publishing information, or might serve as resources?
  o What research tools (beyond Google!) may provide valuable sources?
  o Are there individuals to interview who would add value or nuance? (C)

• Have you become proficient in selecting and using research databases? Do you explore beyond the obvious database choices? (B,C)

• Have you honed your ability to assess the value of the information you find? (C)
  o What expertise buttresses the sources you found? (C)
Have you specifically considered the values and beliefs contained in the sources, and how your own values and beliefs impact your analysis? (A,M)

- Are you adept at presenting the results of your research in appropriate ways for the intended audiences? (B,M)
- Do you develop research questions based on your curiosity and what you would like to know more about? (A) Do you adjust those questions based on what you learn and know through the process of inquiry? (M)
- Do you ask critical questions to challenge your own biases, those of others, and to challenge the biases that may be present in the content you discover? (A,B,M)
- Do you look at a topic or subject from multiple perspectives? Do you integrate different ways of looking at the world to gain new insights about a topic? (B,C,M)
- Do you reflect on the research process and how you think about a particular topic as well as your response to the information you discover? (M)
- When you start to conduct research do you give yourself the freedom to be surprised by the information you encounter, knowing it may change some of your initial assumptions? (A,M)

Participant

- Do you see yourself as an active participant when using social media applications? (M) Do you access content created by others and contribute your own content? (B) Do you have an online voice when participating? (B,M)
- Have you verified the accuracy of user-generated content before sharing or distributing to wider audiences? (C)
- Do you see yourself as an active participant in community organizations and/or through a network of friends, colleagues, and/or acquaintances? Do you have a voice in these community-based settings? (B,M)
- Are there online social environments in which you tend to be a “lurker,” reading comments and observing, but not contributing your own comments? Why do you think this is? (B,M)
- Have you reflected on how you participate in different kinds of communities, and those that are in person or online? Have you noticed differences in how people participate in face-to-face environments and online? (M)
- Has your voice ever been dismissed or disrespected? (A) How did you respond? (B) Have you ever observed other participants give or receive negative feedback, criticism, or even inflammatory comments? Did you choose to respond? (B,M)
- Have you considered how to respond in negative situations in a way that does not exacerbate the problem, while still acknowledging that it has happened? Would
changing your goal from simply reacting in the moment to looking for ways to continue the conversation change how you react? (A,M)

- Do you feel empowered when participating online? Why or why not? (A,M) Have you ever felt or observed that something you said or did within a community, either actual or virtual, made a difference for other people or contributed something of value? (A,C)

- Have you ever reflected on the design of virtual games and the way that learning strategies may be embedded in a game that takes participants from simple to complex levels and achievements? (C,M) How does gaming design strategy impact your learning? (C,M) How is gaming different as the number of participants increases? (C)

### Communicator

- Do you see your role as someone who communicates consciously and conscientiously in a variety of forums? (M)

- When you have information to share, do you first check to determine how accurate it is? (B,C)

- Do you determine if what you would like to share is tailored to appeal to people with a particular point of view? (C) Do you consider that if the viewpoint meshes with your own, you should check other sources to triangulate the information? (A,C) Do you decide to go the extra step if it doesn’t mesh with your own views and check other sources too, rather than discounting it? (A,B)

- Do you consciously reflect on the people you will communicate with? Do you consider that being selective in your communication will cause recipients to value what you share? (M)

- Do you consider what modes of transmission will work best for your intended audience? What level of language? What format? Would they benefit from video, for example? (C)

- Do you consider cultural norms and values when sharing information globally? (C)

- Have you ever reflected on your communication style and the impact of how you deliver messages, in addition to the message itself? (M,C)

- Have you ever regretted any specific communication and thought later about how it could have been delivered in a more effective way? What did you learn from this experience? (M)

- Have you thought about the influence a particular mode of communication may have on the message itself? How might a particular technology impact communication that is transmitted or received? (M,C)

- How important is it for people to critically adapt to new forms of communication technologies and how is it possible to continuously keep up with the inevitable changes? (M,C)
• How are two-way forms of communication similar to and/or different from a network of connected participants? How might these different forms impact the messages delivered and received? (C)

Translator (from one audience to another, or one format to another)

• Do you have expertise in an area of study, hobby, or interest? (C) Have you used this knowledge to make information more understandable to an audience that may not have the same expertise? (B)
• Are you proficient with software or applications that could be used to turn written information into another format that might appeal to some learners? For example, if you have the ability to use a graphic design program, are there ways you could translate information for visual learners? (B,C)
• Do you have abilities such as drawing or singing? (B) Have you translated information into a totally different form and shared it with others? (B,C)
• Have you considered that a global audience might benefit from your translation? How might you take this into consideration? (C)
• Have you run into situations where the format, depth, or specialization of content has limited your ability to understand? If so, have you thought about how it might be changed to address your needs? (C,M)
• Have you experienced artistic forms of expression that were translated or adapted from other artistic forms? Can you think of specific examples? How did the particular medium or format impact the translation of ideas? How did it change? What elements of the original stayed the same? (A,C,M)

Author

• Do you see yourself as an author? Why do you answer as you did? (M) What types of works have you authored (poems, essays, scripts, lyrics, etc.)? (B) What formats of materials do authors create (blog, media, images, video)? (C)
• Do you consider authorship to extend beyond the written word? If so, could you provide examples? If not, why do you see authorship as only based on writing? (C)
• Do you feel confident in your abilities as an author? How do you feel about sharing your work with an audience? (A)
• Do you have a particular audience in mind when you author something? What effect does the audience have on your decisions as an author? (C)
• Have you asked peers to review your work? (B) Have you asked others with expertise in a particular area to review your work? (B) How did you refine your work based on this feedback? (B,C)
- Have you ever authored something with others? (B) What challenges and benefits did this process entail? How did collaborative authorship contribute to the work? (C, M)
- What media or platforms have you used as an author? (B)
- Do you keep a diary or journal that is private to you? (B) How is this different from authoring for an audience? (C, M) How do you feel when you are writing for yourself versus writing for an audience? (A)
- Is texting the same thing as writing or authoring? (C)
- Have you ever authored something for social media that went beyond a clearly defined audience? (B, C)

Teacher
- Do you have abilities or a skill set that you can teach to others? Might you share your knowledge drawn from experience? (B, C)
- Have you reflected on how you learn best? (M) What can a teacher do to facilitate your learning? Have you compared how you learn to how others learn? (C, M)
- When preparing to teach others, how might you use this knowledge about learning to teach more effectively? (A, C, M)
- Have you considered the best way of sharing what you have to teach? In-person? Online? Formally? Informally? (C)
- Would teaching with someone else be advantageous? (A, C, M)
- What learning materials would be helpful to clarify your teaching? (C) Will you need to produce (see Producer) them? If you find existing materials, will you need to seek permission to use them? (C, B)
- Have you worked collaboratively with peers on a team? (B) Have you learned from friends and colleagues by working together and sharing the same goals and interests? Have you reflected on what you may have taught others during these team-based experiences? (C, M)
- Have you ever accessed an online site such as YouTube, WikiHow or Lifehacker to learn how to do something? Have you ever shared instructions, tips, or advice with others via social media sites? (B) Have you reflected on how you may have learned from others online and how you may have taught others by sharing your own experiences? (M)