

Information and digital literacy (IDL) enables engaged learning. It blends information literacies with digital capabilities transcending technological skills and tools to identify with learning, living and working in a fluid digital world. IDL enables learners to discover and absorb information in a critically engaged manner, innovate in active pursuits of creative scholarship, demonstrate integrity by acknowledging the work of others and make a contribution for others to share.

Information and digitally literate students are appreciative and discerning and are able to locate, evaluate and interrogate texts in a critical manner. They can produce, share, use and remix digital information within an ethical context. Intrinsic to this is the ability to understand and apply copyright regulations. IDL embraces a range of media, and engages with societal shifts towards a highly collaborative and hyper-visualised world. Information and digitally literate students are responsible and empowered citizens who develop positive and influential digital identities.

### Discovering.

Discovering is the literacy which enables learners to develop search strategies and utilise a broad range of generic and discipline specific resource discovery tools. Information discovery might be guided, inquiry based, or serendipitous.

### Understanding.

Understanding is the literacy which enables learners to find meaning and apply context. It encompasses academic reading from a broad range of media, both textual and visual, and intersects closely with critical literacy.

### Questioning.

Questioning is the literacy which enables learners to analyse, evaluate, interpret and think critically about information. Questioning, sometimes referred to as critical literacy, sits closely with the literacy of understanding.

### Referencing.

Referencing is the literacy which enables learners to acknowledge the work of others, building on their own analysis of existing knowledge. It also enables learners to attribute sources by creating citations and generating accurate bibliographies. These skills sit within a broad understanding of the legal and ethical context of information and help learners to manage their information and avoid plagiarism.

### Creating.

Creating is the literacy which enables learners to blend ideas and produce new knowledge. Knowledge is created through a range of sources and embraces textual, visual and auditory approaches.

### Communicating.

Communicating is the literacy which enables learners to succinctly summarise and share their work and ideas. It has a dynamic relationship with knowledge creation but focuses on the dissemination, rather than creation, of ideas. Communicating effectively creates a strong and influential public identity. Digital curation is an important element of this.

The IDL framework presented here communicates the six broad literacies supported at the University of Sheffield, namely: discovering, understanding, questioning, referencing, creating and communicating. These literacies interconnect and develop throughout the curriculum, taking learners from novice to expert, supporting student transitions and underpinning a transformational learning experience. IDL is shaped by the context. It recognises and transcends conventions to enhance inter-disciplinarity.

Familiarity with a range of digital devices, and confidence in seeking out and applying guidance, when required, underpins IDL. Information and digital literacy is one of the core Sheffield Graduate Attributes. The University is committed to ensuring that all our students have the support to develop information and digital literacy to enable a research-led university experience. This will position them well for graduate level employment and will equip them with life skills which are transferable to the demands of an increasingly complex digital world.

### Novice

#### Discovering.

Connects with information through guided reading and serendipitous resource discovery.

#### Understanding.

Captures understanding from a range of sources using basic recording techniques. Contributes to peer discussions.

#### Questioning.

Recognises different types of information. Is aware of the peer review process. Can formulate a question and interpret questions posed by others.

#### Referencing.

Respects ownership of the work of others. Can quote, summarise and paraphrase. Generates citations and bibliographies.

#### Creating.

Is familiar with a range of digital creation tools and is aware of, and follows the conventions required within their discipline. Presents ideas within the context of these conventions.

#### Communicating.

Knows how to share information and disseminate knowledge, and takes responsibility for sharing information appropriately. Demonstrates respect for other points of view. Creates a digital identity.

### Intermediate

#### Discovering.

Recognises the value of information from a broad range of sources. Searches beyond the reading list using natural language techniques. Applies guided filters and is selective in the amount and quality of information found. Moves beyond familiar social networks to discover a broader range of views.

#### Understanding.

Develops recording techniques by selecting appropriate software such as mind mapping tools. Actively engages in peer discussions.

#### Questioning.

Asks questions about context, authorship and intent, within the parameters of the discipline. Is aware of potential sources of bias, especially in new or unfamiliar sources. Is reflective. Utilises evaluation tools. Is able to identify and critique citation data. Can interpret the altmetrics associated with scholarly outputs.

#### Referencing.

Recognises the difference between original work and existing knowledge. Understands academic referencing in the context of the discipline. Cites and attributes information. Utilises reference management software.

#### Creating.

Compares and contrasts different viewpoint and works within the creative process to present new meaning. Can interpret and apply formatting requirements, as set in assessment criteria, for a range of digital creation tools.

#### Communicating.

Engages in dialogue and debate. Develops voice and identity. Is persuasive. Utilises a range of digital tools to communicate via different mediums. Understands the power of visual and auditory communication.

### Expert

#### Discovering.

Constructs and reconstructs a search strategy using search language taxonomies. Is reflective and iterative and understands and applies a broad range of search filters. Combines search terms using Boolean operators, sets auto-alerts and utilises social media aggregators. Is discerning in the amount and quality of information found. Is mindful of the assumptions contained within resource discovery.

#### Understanding.

Develops a dynamic approach to critically and appreciatively understanding information. Utilises digital tools to actively participate in an inclusive learning environment. Facilitates peer discussions.

#### Questioning.

Understands that information is constructed and contextual. Respects different disciplines and is appreciative of a broad range of epistemic positions. Can identify potential bias in an author's view, including financial, political, social or individual gain. Is well informed of the attributes of information sources that are considered to be academically credible.

#### Referencing.

Cites and attributes information, with consideration of the broader context of an author's work. Uses advanced features of reference management software.

#### Creating.

Synthesises and appraises the merits of different and sometimes conflicting viewpoints. Demonstrates self reflection when creating new meaning and challenges conventions. Is confident in the use of a range of digital creation tools including those which allow for the co-production of knowledge. Has a flexible approach to new media and continuously embraces emerging technologies.

#### Communicating.

Develops insight of communicating with different audiences, within and outside of academia. Develops an influential digital identity. Builds followers. Generates impact. Participates actively in offline and online networks within and beyond the discipline. Curates knowledge via digital hosting services and labels outputs to enable discovery.