

Public Health Data Logistics

A metaphor for the timeliness, security, and interoperability of well-designed data systems.



The story you're telling:

Just like the complex systems we depend on to ship and receive packages on time, wherever we are, informaticians design the complex systems that ensure people get the public health data “packages” they need, quickly and efficiently.



Strategic way to redirect thinking away from patterns such as:

Fatalism;
Black Box of Terminology;
Systems Quantity Not Systems Quality

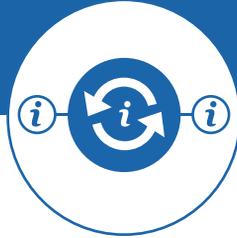


Concepts and ideas included in this frame element:

- **People depend on a complex system of coordinated logistics in order to receive the packages they need in a timely manner:** public health depends on the science of informatics to design the systems that ensure the right information gets to the right place at the right time.
- **Shipping companies try to get packages where they need to go as quickly and efficiently as possible:** informaticians design the data systems that get usable information to the right place as fast as possible.
- **Shipping and receiving packages from anywhere in the world requires standardization, which is why shipping labels contain the same information no matter where you are:** informaticians develop standards that allow for a smoother and more efficient transfer of information within the public health field.
- **Shipping companies make sure that packages arrive safe and sound:** informaticians design systems that ensure data are confidential and secure in transit.

Public Health Information Translation

A metaphor for the interpretive function of informatics



The story you're telling:

Public health data come in many "languages," and informaticians are specialists in the science of translation.



Strategic way to redirect thinking away from patterns such as:

Informatics as Tools without Technicians;
Informatics = Data + High Tech;
Data and Information Are the Same

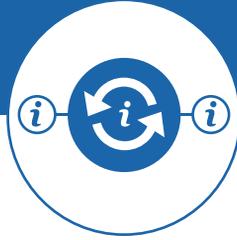


Concepts and ideas included in this frame element:

- **When people who are working towards a common goal do not speak the same language, they need a translator:** establishes the idea that informaticians are crucial for "translating" data that come from one public health subfield so that it can be used by another.
- **Someone who never learned a particular language is unable to understand or use it:** data are unusable if they are not in a language that a public health professional understands, making informaticians critical to the sharing of information among public health fields and with health care.
- **Translators need to know more than just the literal definition of words—they need to know what is most important for the various parties to understand, based on their different needs and motivations:** to facilitate work across public health sectors, informaticians must have a deep understanding of the distinct knowledge needs of the various public health professionals and subfields they work with and deftly interpret the languages they speak.

Public Health Information Translation

A metaphor for the interpretive function of informatics



Concepts and ideas included in this frame element:

- **By making sure people speaking different languages can understand each other, translators bring them together:** informaticians are able to bridge different subfields, promoting more effective cooperation by helping people to share information.
- **Translators can use their knowledge of multiple languages to create dictionaries that help other people translate from one language to another:** informaticians design systems that “translate” data efficiently and accurately so that public health professionals get the information they need.

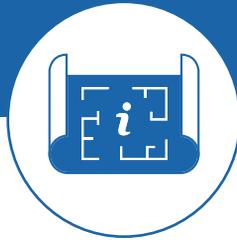


User Notes:

In order to emphasize the social nature of informatics, it is necessary to explain the metaphor more fully than simply saying “informatics translates public health data.” Elaborating on the various entailments described above will help build a fuller understanding of the work informaticians do.

Public Health Knowledge Architects

A metaphor for informaticians' role in designing and remodeling data systems



The story you're telling:

Just as architects plan buildings with the needs of a community in mind, informaticians plan data systems that produce the information professionals need to make sound public health decisions.



Strategic way to redirect thinking away from patterns such as:

Fatalism;
Systems Quantity Not Systems Quality;
Informatics as Tools without Technicians;
Informatics = Data + High Tech



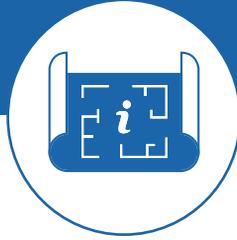
Concepts and ideas included in this frame element:

- **People depend on architects to design buildings that are sturdy and well-suited to their needs:** public health professionals depend on informaticians to design solid, functional information and data systems that respond to the needs of their field.
- **Architects work with their clients to make sure a building's construction is appropriate to that client's particular situation:** informaticians work with public health subfields to ensure the systems they design provide the right information in usable formats to the people who need it.
- **Architects take local context into account when designing their buildings—they need to think about surrounding buildings, natural features of the landscape, whether they are building on a historical site, and more:** informaticians are attentive to the local contexts of data collection and use as they design and build data systems.
- **Architects build new structures, but they are also adept at remodeling existing buildings:** informaticians can effectively "remodel" existing data systems in addition to designing new ones, in order to retain what's good

Continued on back.

Public Health Knowledge Architects

A metaphor for informaticians' role in designing and remodeling data systems



Concepts and ideas included in this frame element:

about an older system while making updates that keep it functioning well as the needs of end-users change over time.

- **Architects work from a comprehensive blueprint of a construction project and know what should be built when. By designing the building as a whole instead of piece by piece, they avoid haphazard, ineffective construction:** informaticians have the specialized knowledge to ensure that data systems are designed with the “big picture” in mind.