**Addiction Ontology Bites**

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| Why should I use AddictO? | It will have three main benefits: 1) It will ensure that the terms you use are clearly defined or mapped to terms which are clearly defined, in a way that is consistent with the way others using the ontology are defining them. 2) It will make it much easier for researchers and users of research to discover your work in searches. 3) It will allow you to contribute to a growing, searchable knowledge base of addiction research that can be used by people and AI systems to synthesise evidence and draw inferences. |
| Will AddictO and PAT constrain my writing? | It will not constrain your ability to express original and creative ideas. On the contrary it will enhance creativity in the way that, for example, use of a natural language rather than making one’s own idiosyncratic grunts and gestures promotes creativity. Use of AddictO and PAT can be thought of as creating a index and ‘view’ of your ideas that allows them to be searchable (enhancing ‘findability’) and interoperable (enhancing the reach of your research, as others can more easily determine how it relates to their research). |
| Is the ontology representative of international language and perspectives? | AddictO is currently expressed in International English but it will be possible and desirable to extend it to other languages. Even with the English language version it will be important to incorporate perspectives from all cultures. |
| Are there any plans to translate the contents of AddictO? | There currently is not a budget to translate AddictO, but it is intended as soon as possible to link up with organisations such as the European Monitoring Agency for Drugs and Drug Dependence to create translations. |
| What if an AddictO definition differs from a well-established definition? | AddictO definitions are ontological definitions, not dictionary definitions (see <https://www.qeios.com/read/YGIF9B>). The definition identifies a class of entities that are believed to exist and gives it a label and a unique ID. Thus the definition is primary and the label is a way that people can refer to it. In dictionary definitions the label is primary and claims are made about what it ‘means’. With ontological definitions it is open to people to use alternative labels for different classes of entity if they choose, but they need to be clear what that class is to avoid confusion of reference. Most importantly, it prevents people from making use of ambiguity and variable definitions as polemic devices. |
| Can AddictO definitions be used by industry or within a legal context? | AddictO classes have the benefit of being clearly defined and with clearly specified relationships with other classes. They are being developed to capture current usage as far as possible. Where usage differs in different interest groups this will be made clear and should assist with resolving legal issues that are obscured by ambiguity and inconsistency in use of language. For example, the term ‘addiction’ was finally accepted publicly by the tobacco industry because it was clear from internal documents that they were fully aware of the addictiveness of tobacco. However, they then attempted to trivialise the term by broadening its scope to include products such as butter and sugar. |
| How is industry influence managed when developing these definitions? | One can expect vested interests to seek to influence the development of an ontology where there are vested interests at stake. This includes pharmaceutical, healthcare provider and addiction industries as well as political vested interests. The AddictO project will not have team members who have financial ties of any kind with addiction industries and others proposing classes, terms, definitions or relationships will be required to declare potential competing interests as one would in a research paper. |
| Where can I read more? | How to create ontological definitions for use in behavioural science:  [Michie S, West R, Hastings J. Creating ontological definitions for use in science. Qeios. 2019 Dec 4.](https://www.qeios.com/read/YGIF9B)  An introduction to AddictO and ECigO:  [West R, Marsden J, Hastings J. Addiction Theories and Constructs: a new series. Addiction. 2019 Jan 14.](https://onlinelibrary.wiley.com/doi/10.1111/add.14554)  [Cox S, Hastings J, West R, Notley C. The case for development of an E-cigarette Ontology (E-CigO) to improve quality, efficiency and clarity in the conduct and interpretation of research. Qeios. 2020 Apr 3](https://www.qeios.com/read/5YYRPJ).  An introduction to the human behaviour change ontology:  [Wright AJ, Norris E, Finnerty AN, Marques MM, Johnston M, Kelly MP, Hastings J, West R, Michie S. Ontologies relevant to behaviour change interventions: A method for their development. Wellcome Open Research. 2020 Jun 10;5(126):126.](https://wellcomeopenresearch.org/articles/5-126) |
| How does AddictO handle drugs, their role and their actions? | Specific drugs are defined according to their chemical structure and have drug classes as parents that are also defined according to their chemical structure. In line with CHEBI, drugs have 'biological roles' which are the effects the drugs have on the body. Drugs also have 'application roles' which are the uses to which drugs are put. Some drug classes are defined in terms of their biological roles.  For example:  Label: Bupropion  Definition: An aromatic ketone that is propiophenone carrying a tert-butylamino group at position 2 and a chloro substituent at position 3 on the phenyl ring.  Application role: Antidepressant.  Biological role: Noradrenaline reuptake inhibition.  Biological role: Dopamine reuptake inhibition.  Biological role: NAch receptor antagonist.  Application role: Antidepressant.  Application role: Smoking cessation aid.  Label: Antidepressant drug  Definition: A drug that has an antidepressant application role. |

# Addressing common objections to ontologies