



People know

Anastássios Perdicoulis

Assistant Professor, ECT, UTAD (<http://www.tasso.utad.pt>)

Affiliate Researcher, CITTA, FEUP (<http://www.fe.up.pt/~tasso>)

Abstract

The esteemed mission of Science cannot afford to squander knowledge captured in people’s experience. The challenge is how to make good and trustable use of this obscure, distributed, and rough treasure.

1 Mission ‘knowledge’

Technically, both *science* and *episteme* — its Greek counterpart — are about knowledge (scire [L], to know, to understand; επίστασθαι [Gk], to know, to know how to do). Science formally employs *research* as a means of collecting what each specialist knows, bringing it all together, and thus taking the next step forward in the intended direction. The contribution of research can come at different ‘quanta’ (literally, quantities) — Table 1.

QUANTUM	ACHIEVEMENT	VALUE	ENCOUNTERED IN...
4	knowledge	the full experience	living, doing
3	understanding	explanation/ mechanisms	scientific articles, textbooks
2	information	interpretation/ meaning	business reports, newspapers
1	data	facts/ objective reality	databases, fact sheets

TABLE 1 With knowledge being the ideal state, research work often settles for less

Data are *facts*, describing or representing the ‘objective reality’ — for instance, the highest peak of Mount Everest is 8,848m above sea level, featuring dramatically reduced air pressure and oxygen concentration levels. Information gives *meaning* to the facts, often with practical applications — for instance, it is (relatively) difficult to breathe at Mount Everest, at least before the body adapts to these conditions, so an oxygen supplement may be required. We can obtain physiological explanations for how the body reacts to such extreme conditions over time, so we can develop some *understanding*. But until we have been on top of Mount Everest, we will not *know* what high altitude means in practice — how it feels to be there.

2 Predicaments

Data-rich and well-informed does not imply understanding (Perdicoulis, 2012) — as seen in the previous example, regarding very high altitudes (data), precautions (information), and human physiology (understanding). Nonetheless, this predicament does not preclude knowledge: one may be data- and information-poor (e.g. no compass, no altimeter, no weather forecast), but have very thorough ‘know-how’ — as the Sherpas have, for instance, in the case of mountaineering. We would call that ‘experience’, meaning practical contact with events or situations.

While researchers/ scientists are keen on facts and information, are curious to understand, and are proud to teach, they can be easily estranged from knowledge — for instance, if or when they have little or no first-hand experience with their object of study. ‘Desk research’ tends to do that, together with lack of time, funding, or other resources. No matter what the reasons when this happens, it is a shortcoming.

3 Premise

Jay Forrester (MIT Sloan Executive Education Faculty, Website) often claims in conversations that ‘people know’: they accumulate specific knowledge through their life experience, and this is valuable for them and for others. Being ‘anecdotal’ (literally, ‘unpublished’), no citation can be attributed to this quote — except, perhaps, for Jay’s credits, being the founder of System Dynamics *inter alia*.

We can accept that useful information may exist in people’s knowledge, mostly through their experience. Jay’s point is that knowledge cannot (and should not) be disregarded because it is (literally) anecdotal. It may be valid or not, and in certain conditions; it may contain misconceptions; it may be incomplete; it may be subject to interpretation. But experiential knowledge held in people still has value — after all, this is every scientist’s own personal aim: to gain experience in their work; to get to know (and be known for that).

4 People as sources

The esteemed mission of science does not leave margins to anyone of its practitioners to squander knowledge, including that captured in people’s experience. Knowledge should be revered, no matter where it resides. As with every kind of knowledge, the obscure, distributed, and rough treasure kept in peoples’ minds should be discovered, assessed, and put to good use. This includes some challenges, such as finding the right people (and many of them, if possible), from different points of view and interests; assess how much (or little) of their knowledge is to be trusted; assess whether the transmission of knowledge has been ‘scientific’ — e.g. interpretation in the right context, and objective registration.

Contacting people as sources of knowledge often involves ‘live’ *interviews*, captured as audio or video and then transcribed into text, and/ or *questionnaires* administered either ‘live’ or through a medium, including the internet. Technical means to assist this process include the famous 20th C. clipboards, audio recorders, and video cameras, while the beginning of the 21st C. characteristically features personal mobile devices and the internet.

Interviews and questionnaires are capable of bringing in large amounts of practically unusable information, often fuelled by a desire to ask as much as possible, since the contact opportunity is limited. Obtaining the ‘right’ information (for a given purpose) through people who know amounts

to good preparation. It helps to know what we are aiming for in an interview or questionnaire, so we can ask the ‘right’ questions — and these can very well be open-ended questions, which are capable of stimulating or motivating rather than ‘questioning’ someone. The answer we might be looking for could fall into one of several categories, such as the following (Perdicoulis, 2010): (a) *system*, or a set of interacting elements — e.g. who is who? who does what to whom? with what resources? (b) *process*, or sequence of tasks and stages — e.g. where do we start? who does what? what do we obtain? what is the next step? (c) *plan*, or cause-and-effect sequences — e.g. what happens after an action? to whom? and then what? to whom?

Although not very commonly practised, interviews and questionnaires can be asked as ‘stories’ — that is, a simplified form of narrative (Perdicoulis, 2011, pp.36–38). If properly asked, people can usually tell stories well, and many are even very good at this. As in every process, carrying out interviews or questionnaires in a hasty manner is not a good idea: taking time to listen and record, and — if possible — having a second contact may provide clarifications that will enhance understanding and share knowledge in a trustworthy manner — worthy of science.

5 Challenges

As with every art, dealing with people’s knowledge is tender and subtle work. Questionnaires and interviews, appropriate for those fields of knowledge where people are credited to know, are not (or should not be) as mechanical as feeding some statistics applications. Obtaining knowledge from people must involve a trustable transfer process, and construct real, trustable information. Learning and practicing this art is one big challenge, and it faces considerable opposition from the current widespread desire for quantified information — preferably obtained fast.

References

- MIT Sloan Executive Education Faculty (Website) *Jay Forrester*. URL: <http://executive.mit.edu/faculty/profile/11-jay-forrester>.
- Perdicoulis, A. (2012) Information and understanding. *oestros*, **2**.
- Perdicoulis A. (2011) *Building Competences for Spatial Planners: Methods and Techniques for Performing Tasks with Efficiency*. London: Routledge.
- Perdicoulis A. (2010) *Systems Thinking and Decision Making in Urban and Environmental Planning*. Cheltenham: Edward Elgar.

