

# Introduction to NVivo

Analyzing Qualitative Data

# Functionality

- Nvivo is a complex piece of software that is very helpful for organizing data in many different formats
- Most commonly used for dealing with large amounts of unformatted text data
- Allows you to bring together different files and file types into a single project and manage them as a coherent whole

# Coding

- Nvivo has many tools to make working with qualitative data easier, but for most people the core of doing qualitative research (and the most time-consuming part) is *coding*
- Chunks of text (phrases or sentences in interview data, for example, or individual tweets) are tagged with descriptors that classify them according to some scheme
  - In Nvivo these tags or descriptors are called *nodes*
- Codes can be a priori (come up with a list of terms according to theory before analysis) or inductive (terms emerge as you work through your data)
- Nodes are also used to store cases (units of observation, e.g. people who responded to a survey)

# Files, sources, cases, nodes

- Sources are your research materials including documents, PDFs, datasets, audio, video, pictures, memos and framework matrices
- Files containing your source material can be imported into NVivo and stored in an NVivo project.
  - Updating your source files after importing them doesn't update them in your NVivo project!
- Coding allows you to gather material by topic, theme or case. For example, selecting a paragraph about water quality and coding it at the node 'water quality'. NVivo's ability to handle multiple file types allows you to explore unified themes across many elements of your research
- Node classifications allow to you record information about people, places or other cases— for example, demographic data about people.
- You can use these different types of nodes together – for example, to see differences in how male and female respondents talk about water quality
- Source classifications let you record information about your sources—for example, bibliographical data

# Importing spreadsheet data

- Set up spreadsheet data as a simple rectangle
- Put just one thing in a cell
- Subjects or cases as rows, data items as columns, and a single header row
- Column headers should be brief and descriptive

	A	B	C	D	E
1	Row ID	Respondent	ReturnDate	The natural environn	The water quality Down East is
2	1	DE001	14/12/2004	beautiful	good
3	2	DE002	17/12/2004	good	good
4	3	DE003	11/12/2004	peaceful, beautiful s	most important to maintain
5	4	DE004	16/12/2004	becoming poorer wit	being reduced by pollution
6	5	DE005	04/12/2004	an important part of	excellent
7	6	DE006	07/12/2004	good	good
8	7	DE007	09/12/2004	perfect!	good
9	8	DE008	07/12/2004	beautiful	good
10	9	DE009	15/12/2004	needed to keep the r	getting worse as time goes on with no
11	10	DE010	11/12/2004	worth preserving	not good - believe run off from [?] and f
12	11	DE011	03/12/2004	as good as when I w	pristine
13	12	DE012	15/12/2004	fragile	deteriorating
14	13	DE013	09/12/2004	in need of good stew	good
15	14	DE014	18/12/2004	threatened	very good until further development wit
16	15	DE015	08/12/2004	Priceless	Critical to the way of life
17	16	DE016	07/12/2004	splendid.	a great reason resource which is being

# Setting up documents

- Nvivo will import any document regardless of format, but you can set up the document to take advantage of autocoding
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# Content analysis

- Content analysis is a formalized way of summarizing a mass of text data to make it easier to discover meaning
- Chunks of text (phrases or sentences in interview data, for example, or individual tweets in social media data) are tagged (coded) with descriptors that classify them according to some scheme
- Focus in content analysis can be more quantitative (focused on counting and measuring) or qualitative (focused on identifying and describing key themes) – also called thematic analysis
- Another division is between relational content analysis (looking at which concepts tend to occur together) and conceptual (coding for simple concepts)
  - Social media like tweets and comments may be more suited for conceptual analysis, being short and often focused on communicating a single key concept
- A simple form of content analysis is word frequency analysis, which may be visualized using word clouds (e.g. [Wordle](#) )

# An iterative process

- Qualitative analysis is generally an iterative process – you read through your data applying codes and discovering ideas, and when something new strikes you, you may find yourself going back to data you have already read through to look at your data with a new lens
- Coding is the process of organizing your data to make it easier to discover themes and make sense of it. It is an art, not a science – there is no one correct way to do it
  - One researcher might apply fine-grained descriptive codes, and then group and condense codes into broad themes and use these themes to summarize what has been learned about the research question
  - Another might start with broad groupings and then delve into each of the broader groupings separately to see how different interview subjects conceptualize them
- The most important part of qualitative analysis is what takes place in the researcher's head. Software can help make the process of coding, annotating and keeping track of your data easier, but there is no way to automate the process of making it make sense.



# How to access NVivo

- Western has a site license that allows Nvivo to be purchased at a significant discount. See the [WTS site for details and contact](#).
- Some departments including Education also have licenses and will provide it to graduate students and faculty for free; contact your department to see if this is an option
- The library has NVivo installed on several public workstations in the Map and Data Centre on the ground floor, where NVivo can be accessed for free.

# Other options

- NVivo is the only commercial qualitative package supported by the library, but depending on what functionality you need, free options may be helpful
  - [Taguette](#) is an open source alternative that is easy to install and use. It has good coding features (Taguette uses the term tagging) but limited functionality otherwise. Good for simple projects.
  - [QDA Miner Light](#) is a free version of a commercial package that has coding, searching, and some basic charting and analysis features. Full version is similar to NVivo in functionality; free is missing various features
  - See a list of other options [here](#). Many are web-only and may not be suitable for interviews and other human subjects data. Others are customized for specific types of research (e.g. video analysis or ethnographic research)

# Resources

- [NVivo Tutorials](#) from QSR
- [NVivo for Qualitative Research](#) from QSR
- [NVivo 10 Getting Started Guide](#) from QSR – dated but very clear and helpful
- [Introduction to using NVivo](#) from the University of Edinburgh – a little more advanced
- [A hands-on Guide to doing Content Analysis](#) article

Questions or support?

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