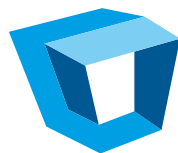# Implementing a longitudinal data portal with a customized version of Questasy

EDDI12 – Bergen, Norway
4.12.2012
Toni Sissala

YHTEISKUNTATIETEELLINEN TIETOARKISTO
FINLANDS SAMHÄLLSVETENSKAPLIGA DATAARKIV
FINNISH SOCIAL SCIENCE DATA ARCHIVE

REQUIREMENT

Requirement

> Longitudinal data portal consisting of periodically collected variable-level metadata.

- Web application.

- Supports DDI.

- Helps researchers find, acquire and deposit data.

> Implemented as a part of a five-year project *FSD-Upgrade*

> Relieves the workload of our user services by consolidating electronic dissemination of data.

Requirement

> Search engine capable of indexing variable-level data

> View showing sequences, means and other statistical measures at variable level

> Login system integrated to FSDs single-sign-on system

> Possibility to manage user roles and ACLs

> Finding out how a question text differs across waves

> FSD should be able to administer and uphold the system without the need for outside assistance

> FSD should be able to customize the system

EVALUATION

Evaluation

> Tools already developed by the DDI community

- As reference,

- be applicable through customization

- or fully implemented with minor changes.

- License should allow modifications

> Building our own system vs. customizing an existing one

- Customizable software has benefits:

    - easy to evaluate against use cases

    - we could develop additional functionality

    - saves the time and effort required to build a system from scratch

Evaluation

> Questasy – a web application developed by CentERdata

- facilitates access to metadata collected within longitudinal studies
- database model is based on DDI
- offers a way to link variables between waves of the studies
- free software, license allows modifications
- actively developed by CentERdata

Evaluation

> Additional benefits from Questasy:

- Browse and categorize study elements by:
  - topics associated with studies
  - concepts associated with variables
- Access Control Lists – limit access for each action per user role

> Conclusion: FSD will be using Questasy as a platform on which to base the longitudinal portal

- Some customization required

DEVELOPMENT

Development

> It was already decided that we would

- brand the layout of the software to reflect the look of our homepage

- translate the user interface to Finnish.

> Additional reviews to find out if there are any issues in the software regarding the functions and principals it upholds

Development

> Questasy has an importer for variables

- Imports OMS-files that can be exported from SPSS

- Since a study can hold hundreds of variables, this feature is very useful

- Problem: each imported variable should have a corresponding question presented in a questionnaire. Questionnaires are populated manually.

- Solution: to develop a question importer that generates questionnaires

> Variables need to be linked to corresponding questions.

- Problem: manual work done variable by variable

- Solution: automated group linker –functionality

Development

> Extending the database to contain statistical measures derived from the variables

- Problem: Questasy's built-in variable importer doesn't support statistical measures

- Solution: Create a new importer for variables

  - imports DDI2 files

  - supports statistical measures

  - additional benefit: only DDI file required to import both variables and questions

> Multilingual support for the user interface

- Not yet in use

Development

> FSD decided to develop the following features:

- DDI importer for questions. Supports the generation of a questionnaire.

- Support for statistical measures: database, CRUD-functionality

- DDI importer for variables. Supports statistical measures.

- GroupLinker to automate linking of variables and questions

- Multilingual support for the UI

- Branded layout

- UI translated into Finnish

Development

> Variable Basket feature to work on a Linux server

- Problem with StatTransfer and ODBC-API: StatTransfer doesn't support ODBC-connections on a Linux machine

- FSD would like to use the Variable Basket feature. We might be able to replace the back-end with something we could use.

- Solution remains open

> Interoperability:

- Second stage of development. Not yet implemented.

- Integration to the SSO system

- Integration to the electronic data dissemination system

INTEROPERABILITY

Interoperability

> Integrate the portal's authentication back-end to a Single-Sign-On system for FSD web services

- The SSO system is also under development
- It will use HAKA-federation as an Identity provider
  - HAKA consists of nearly all universities and polytechnics in Finland

> Portal will direct users to download datasets from the electronic data dissemination system (AILA)

- The dissemination system is currently under development
- Also a key element of the *FSD Upgrade project*

IMPLEMENTATION

Implementation

> Consists of three stages

- I Stage – Demo to advertise the upcoming portal:
    - no login / register functionality
    - no downloads
    - already implemented and published online
- II Stage – Interoperability:
    - login system via the SSO for FSD web services
    - possibility to download datasets
    - research interface to collect metadata while the study is in progress
- III Stage – New features:
    - Variable Basket feature with a Linux compatible back-end
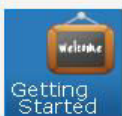   - import / export DDI3

SCREENSHOTS

LoDa Etusivu

Tietovaranto sisältää tutkimusaineistosarjoihin liittyviä poikittaisaineistoja sekä niiden kuvailutietoja. Poikittaisaineistoja yhdistämällä voi muodostaa pitkittäisaineistoja.

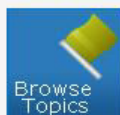Huom! Betavaiheessa tietovaranto sisältää vain muutamia aineistoja ja niiden tietoja.

Portaalin esittely
Perustietoja portaalin toiminnasta ja elementeistä
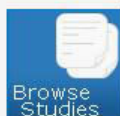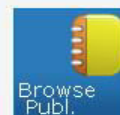
Selaa pitkittäisaineistoja
Katso aineistoja ja niiden aihealueita

Perushaku
Tarkennettu haku.

Selaa aineistoja aihealueittain

Selaa julkaisuja
Katso julkaisuja, joissa aineistoja on käytetty
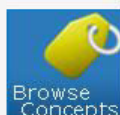
Selaa muuttujia aihealueittain

⌂ / Pitkittäisaineistoportaali / Tutkimusaineistot / Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress / 1789-1996: MERGED DATA / Import Kysymykset

Ohje

Import Question Items

DDI type   DDI2 ▾

DDI-file   Z:\Työt\questasy\test-import-ddi2\Muokkaamattomat\e   Browse…

Sorting type   File-specific ▾

Remove trailing underscore
from Table-headers   ☑

Generate Questionnaire   ☑

Simulate import   ☐

Import Questionnaire

Nimi   1789-1996: Merged data

Blaise Name   N/A

Description

Submit

⌂ / Pitkittäisaineistoportaali / Tutkimusaineistot / Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress / 1789-1996: MERGED DATA / 1789-1996: Merged data / Import

Ohje

Import DDI2 File

Import File Z:\Työt\questasy\test-im [Browse_]

Import Statistics To
Physical Instance [data_v1 ▼]

[Submit]

🏠 / Pitkittäisaineistoportaali / Tutkimusaineistot / Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress / 1789-1996: MERGED DATA / 1789-1996: Merged data

Ohje

Variable - Question Group Linker

Muuttujia

ID	Name	Select
1141	V1	☐
1142	V2	☐
1143	V3	☐
1144	V4	☐
1145	V5	☐
1146	V6	☐
1147	V7	☐
1148	V8	☐
1149	V9	☐
1150	V10	☐
1151	V11	☐
1152	V12	☐
1153	V13	☐
1154	V14	☐
1155	V15	☐
1156	V16	☐
1157	V17	☐
1158	V18	☐
1159	V19	☐
1160	V20	☐
1161	V21	☐
1162	V22	☐
1163	V23	☐
1164	V24	☐
1165	V25	☐
1166	V26	☐
1167	V27	☐
1168	V28	☐
1169	V29	☐
1170	V30	☐

Questions

ID	Name	Select
2789	[H1]_VG1	☐
2790	V1	☐
2791	V2	☐
2792	V3	☐
2793	V4	☐
2794	V5	☐
2795	V6	☐
2796	V7	☐
2797	V8	☐
2798	V9	☐
2799	V10	☐
2800	V11	☐
2801	V12	☐
2802	V13	☐
2803	V14	☐
2804	V15	☐
2805	V16	☐
2806	V17	☐
2807	V18	☐
2808	V19	☐
2809	V20	☐
2810	V21	☐
2811	V22	☐
2812	[H2]_VG2	☐
2813	V23	☐
2814	V24	☐
2815	V25	☐
2816	V26	☐
2817	V27	☐
2818	V28	☐

Submit   Reset

Link by names (case insensitive)

YHTEISKUNTATIETEELLINEN
TIETOARKISTO

LoDa
Beta

Enter search text...

Advanced Search

🏠 / LoDa / Study Units / Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress / 1789-1996: MERGED DATA / Questionnaires / 1789-1996: Merged data

Help

Questionnaire 1789-1996: Merged data

Description

Study Unit   1789-1996: MERGED DATA

	Question	Question Text	Answer Type
1	[H1]_VG1	MEMBER INFORMATION	
2	[H2]_VG2	OFFICES PRIOR TO CONGRESSIONAL SERVICE	
3	[H3]_VG3	HISTORY OF CONGRESSIONAL SERVICE	
4	[H4]_VG4	OFFICES HELD SUBSEQUENT TO CONGRESSIONAL SERVICE	
5	[H5]_VG5	SERVICE IN CONGRESS OF RECORD	
6	[H6]_VG6	ICPSR VARIABLES	

YHTEISKUNTATIETEELLINEN
TIETOARKISTO

LoDa
Beta

Enter search text...

Advanced Search

<< prev | next >>

Question [H2]_VG2

Selection of respondents: all respondents

Finnish		Note

Question Text: OFFICES PRIOR TO CONGRESSIONAL SERVICE

LAST MUNICIPAL OFFICE HELD PRIOR TO SERVICE IN CONGRESS

00 NONE MENTIONED IN BDAC OR OTHER SOURCES;
01 CITY TREASURER;
02 CITY COUNCIL;
03 MAYOR;
04 SCHOOL COMMISSIONER / SCHOOL BOARD;
05 COMMISSIONER;
06 CITY CLERK;
07 TOWN SUPERVISOR;
93 BOARD MEMBER / SELECTMAN / ALDERMAN;
94 CIVIL SERVANT;
95 ASSESSOR;
96 JUSTICE OF THE PEACE;
97 CITY ATTORNEY;
-1 MD

Collapsed Version of Last Municipal Office Prior to Service

0 No service in a municipal office mentioned in BDAC or other sources ;
1 Some municipal office was held ;
9 MD

The only judicial office included in this variable is Justice of the Peace

Any Municipal Office Held Prior to Service in Congress

0 No service in a municipal office was mentioned in BDAC or other sources ;
1 Some service in a municipal office, including municipal judgeship ;
9 MD

Number of Levels of Government Served in Prior to Service in Congress--Three Possible Levels	0 1 2 3 9	NONE; ONE; TWO; THREE; MD	A Member's score is incremented by one if that individual served at the local level, at the state level or at the federal level prior to any service in Congress. The highest possible score is three. Note that judicial offices are included in the local, state, and federal categories.

Instruction: OFFICES PRIOR TO CONGRESSIONAL SERVICE

Related Variables

Variable	Dataset	Study Unit
V23	1789-1996: Merged data	Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress > 1789-1996: MERGED DATA
V24	1789-1996: Merged data	Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress > 1789-1996: MERGED DATA
V25	1789-1996: Merged data	Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress > 1789-1996: MERGED DATA
V26	1789-1996: Merged data	Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress > 1789-1996: MERGED DATA
V27	1789-1996: Merged data	Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress > 1789-1996: MERGED DATA
V28	1789-1996: Merged data	Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress > 1789-1996: MERGED DATA
V29	1789-1996: Merged data	Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress > 1789-1996: MERGED DATA
V30	1789-1996: Merged data	Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress > 1789-1996: MERGED DATA
V31	1789-1996: Merged data	Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress > 1789-1996: MERGED DATA
V32	1789-1996: Merged data	Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress > 1789-1996: MERGED DATA
V33	1789-1996: Merged data	Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress > 1789-1996: MERGED DATA
V34	1789-1996: Merged data	Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress > 1789-1996: MERGED DATA
V35	1789-1996: Merged data	Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress > 1789-1996: MERGED DATA
V36	1789-1996: Merged data	Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress > 1789-1996: MERGED DATA
V37	1789-1996: Merged data	Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress > 1789-1996: MERGED DATA
V38	1789-1996: Merged data	Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress > 1789-1996: MERGED DATA
V39	1789-1996: Merged data	Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress > 1789-1996: MERGED DATA

Variable V23

Information

Variable Name	V23
Variable Label	LST N-J MUN OFC PRE-CONG
Dataset	1789-1996: Merged data

Codings

No Codings

Representation

Representation Type	Categories
Categories	

00	NONE MENTIONED IN BDAC OR OTHER SOURCES
01	CITY TREASURER
02	CITY COUNCIL
03	MAYOR
04	SCHOOL COMMISSIONER / SCHOOL BOARD
05	COMMISSIONER
06	CITY CLERK
07	TOWN SUPERVISOR
93	BOARD MEMBER / SELECTMAN / ALDERMAN
94	CIVIL SERVANT
95	ASSESSOR
96	JUSTICE OF THE PEACE
97	CITY ATTORNEY
-1	MD

Blank Is Missing Value	Yes

Variable Statistics

There are no Variable Statistics

Related Questions

Question	Questionnaire	Study Unit
[H2]_VG2	1789-1996: Merged data	Roster of United States Congressional Officeholders and Biographical Characteristics of Members of the United States Congress > 1789-1996: MERGED DATA

Kyselylomake FSD2039

Kuvaus

Tutkimusaineisto ISSP 2004: kansalaisosallistuminen: Suomen aineisto

	Kysymys	Kysymysteksti	Vastaustyyppi
1	FSD_NO	Aineistonumero (lisätty FSD:ssä)	Numeerinen
2	FSD_VR	Aineistoversio (lisätty FSD:ssä)	Numeerinen
3	FSD_PRO	Aineisto on kuvailtu mahdollisimman yksityiskohtaisesti suomeksi ja englanniksi. Datatiedostosta on tarkistettu muun muassa muuttujien jakaumat, filtterimuuttujat, puuttuvat tiedot, muuttujien selitteet ja arvojen selitteet. Tarvittaessa datatiedosto on anonymisoitu.	Koodisto
4	FSD_ID	Havaintotunnus (lisätty FSD:ssä)	Numeerinen
5	LNO	Lomakenumero	Numeerinen
6	K1	Sukupuolenne?	Koodisto
7	K2	Syntymävuotenne?	Numeerinen
8	K3	Oletteko tällä hetkellä... Rengastakaa vain yksi vaihtoehto.	Koodisto
9	K4	Asutteko nykyisin yhdessä puolison tai vakituisen elämänkumppanin kanssa?	Koodisto
10	K4B	Olen asunut hänen kanssaan vuodesta	Numeerinen
11	K5	Kuinka monta henkilöä kotitaloudessanne asuu? Yhteensä:	Numeerinen
12	K6	Heistä on 18-vuotiaita tai sitä vanhempia aikuisia	Numeerinen
13	K7	Heistä on 7-17-vuotiaita lapsia tai nuoria	Numeerinen
14	K8	Heistä on 6-vuotiaita tai sitä nuorempia lapsia	Numeerinen
15	[H1]_K9	Kotitaloudessa asuvien alle 18-vuotiaiden lasten syntymävuodet:	
16	[H2]_K10	Koulutuksenne ja jos olette tällä hetkellä avo- tai avioliitossa, puolisonne koulutus? Rengastakaa vain yksi vaihtoehto molemmilta numerosarakkeilta.	
17	K11	Kuinka monta vuotta olette käynyt koulua tai opiskellut kaiken kaikkiaan (mukaan lukien mahdolliset yliopisto-opinnot ja pois lukien työharjoittelut)?	Numeerinen
18	K11B	Opiskelen vielä	Koodisto
19	[H3]_K12	Mikä seuraavista vaihtoehdoista sopii Teidän elämäntilanteeseenne ja jos olette tällä hetkellä avo- tai avioliitossa, puolisonne elämäntilanteeseen? Rengastakaa sopivin vaihtoehto.	
20	[H4]_K13	Mikä on Teidän nykyinen tai viimeisin ammattinne tai ammatti, jota opiskelette parhaillaan? Jos olette tällä hetkellä avo- tai avioliitossa, niin mikä on puolisonne nykyinen tai viimeisin ammatti tai ammatti, jota puolisonne opiskelee parhaillaan? Kirjoittakaa ammatti mahdollisimman tarkasti.	
21	[H5]_K14	Missä elinkeinossa tai millä toimialalla työskentelette tai viimeksi työskentelitte? Jos olette tällä hetkellä avo- tai avioliitossa, niin missä elinkeinossa tai millä toimialalla puolisonne työskentelee tai viimeksi työskenteli? Rengastakaa sopiva toimiala.	
22	K15	Mikä on säännöllinen viikoittainen työaikanne keskimäärin?	Numeerinen
23	K16	Mikä on puolisonne säännöllinen viikoittainen työaika keskimäärin? Vastatkaa vain silloin, jos puoliso käy ansiotyössä.	Numeerinen
24	K17	Mikä on ammattiasemanne? (Tai viimeisin ammattiasema, jos ette ole työssä.) Rengastakaa sopivin vaihtoehto.	Koodisto
25	K17B	Jos työntekijöitä, niin kuinka monta?	Numeerinen
26	K18	Onko Teillä nykyisessä työssänne alaisia (tai työntekijöitä), siis sellaisia, jotka ovat vastuussa työstään suoraan teille? Jos ette ole työssä, vastatkaa viimeisimmän työnne mukaan.	Koodisto
27	[H6]_K19	Onko työnantajanne valtio, kunta, valtionyritys vai yksityinen? Jos olette tällä hetkellä avo- tai avioliitossa, niin onko puolisonne työnantaja valtio, kunta, valtionyritys vai yksityinen? Jos ette ole työssä tai puolisonne ei ole työssä, vastatkaa viimeisimmän työsuhteen mukaan.	
28	K20	Oletteko jonkin ammattiliiton jäsen?	Koodisto

Muuttujan arvot ja koodaus

Muuttujan tyyppi	Koodit		
Koodisto	1	Ei lainkaan tärkeää	
	2		
	3		
	4		
	5		
	6		
	7	Erittäin tärkeää	
	8	En osaa sanoa	
	SYSMISS		

Puuttuvan havainnon merkkinä on käytetty tyhjää   Kyllä

Tilastolliset tunnusluvut

data_v1 - Jakaumat

Koodi	Selite	Tyyppi	N
1	Ei lainkaan tärkeää	Frekvenssit	73
2		Frekvenssit	69
3		Frekvenssit	91
4		Frekvenssit	126
5		Frekvenssit	192
6		Frekvenssit	266
7	Erittäin tärkeää	Frekvenssit	483
8	En osaa sanoa	Frekvenssit	37
SYSMISS		Frekvenssit	17

data_v1 - Keski- ja hajontaluvut

Aritmeettinen keskiarvo	5.4
Kelvolliset havainnot	1337
Minimi	1
Maksimi	8
Keskihajonta	1.86

Liittyvät Kysymykset

Kysymys	Kysymyslomake	Tutkimusaineisto
[H7]_K29	FSD2039	ISSP > ISSP 2004: kansalaisosallistuminen: Suomen aineisto