PROJECT NUMBER : IAP - 2117

From end user requirements to POESIA recommendations

A PUBLIC OPEN-SOURCE ENVIRONMENT FOR A SAFER INTERNET ACCESS

WWW.POESIA-FILTER.ORG

Information Society

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Presentation Aims

- Introduction to POESIA
- End Users Analysis
- Cross-country comparisons
- Perceived User Needs
- Conclusions

POESIA: Introduction

- open-source (or free) filtering software project
- mixes technologies, multi-disciplinary approach
- **main market** for POESIA is educational organisations, such as schools and libraries
- each POESIA system runs on a Linux PC separating a ‘network’ from the Internet but sharing the filtering information
- **target audience** = ‘technical user’ not ‘end user’

POESIA: Challenges (End User point of view)

- understanding:
  - Internet safety issues
  - filtering
  - technologies
  - OSS – Linux – market – target audience
- successfully working with technology partners
- End User team very varied
  - Telefonica and FCR (ES)
  - PIXEL (IT)
  - HOPE (UK)

POESIA: Challenges (End User point of view)

- apparently simple problem(s)
- harmful/not harmful - filter/block
- complex problem(s)
  - multiple technologies
  - linguistically
  - graphically
- more complex solution(s)
  - many different End User cases
  - many educational contexts

POESIA Context: End User Needs Analysis

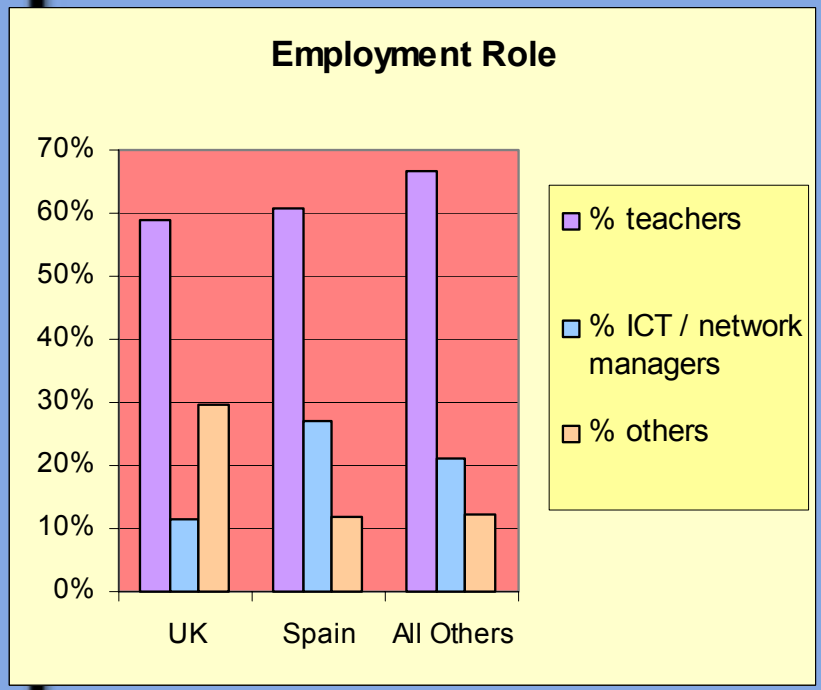
- interpretation of state-of-the art
- Questionnaire of End Users … n=261
- Spain (130), UK (87), others (mainly Italy) (44)

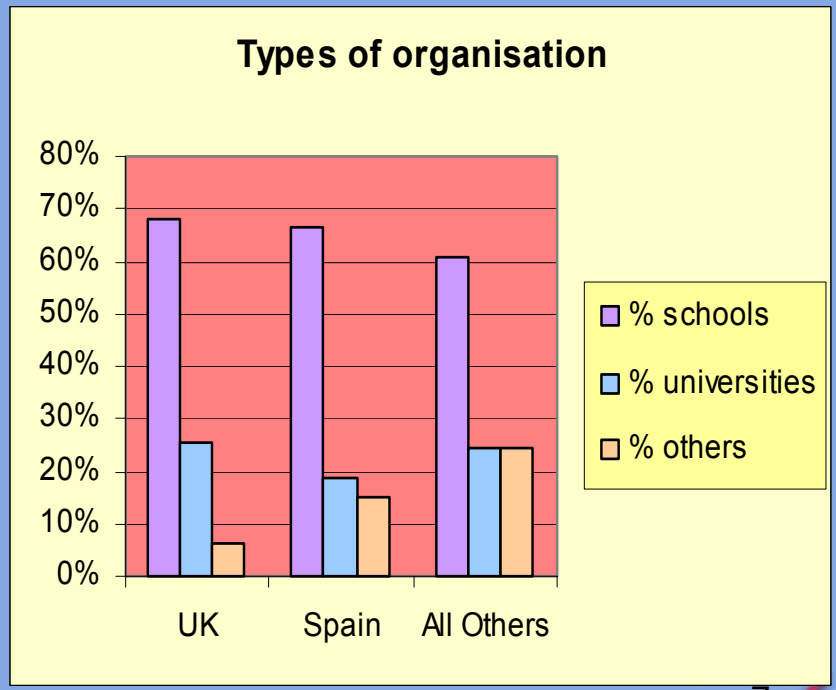
target audiences

- **institution decision makers** impact on many
  - Head of organisation
- **technical decision takers**
  - IT Coordinator/network manager
  - Other

Statistically similar samples

- Types of institution
- Employment role of person

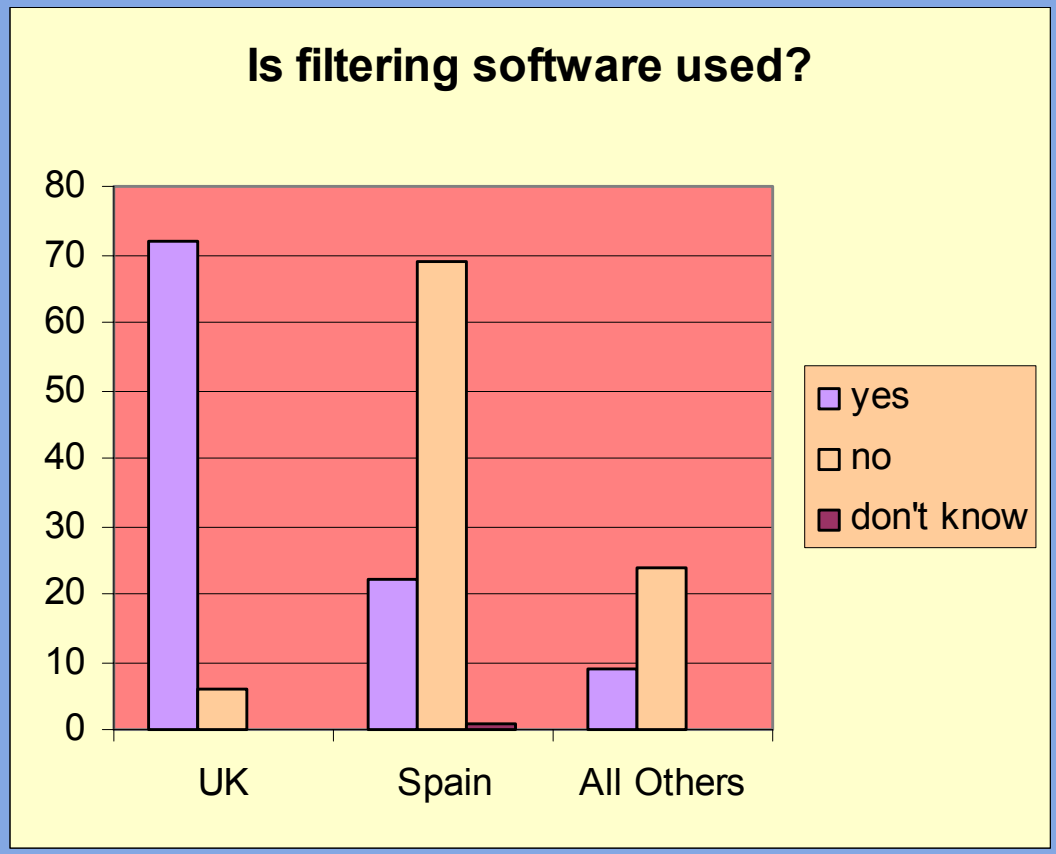




General issues

- those responsible for filtering systems usually Network Managers (46%) and IT coordinators (33%)
- over 60% of the institutions do not use a filtering system
- many different types of filtering software used (17 types mentioned)

Use of filtering



Significant differences between samples

Existing Filtering Systems

Positive features

- blocking / controlling the activities of the target users (41%)
- execution speed (14%)
- system effectiveness (10%)

Negative features

- inaccuracy (47%)
- lack of effectiveness (10%)
- restrictions (7%)

Internet Channels: findings

- **WWW most significant concern**, Web pages and Web advertising
- **some channels not considered important**: mailing lists, search engines, email
- **some significant differences between countries**
- **concerns over synchronous channels** (chat and Instant Messenger) in UK

Donert K (2004), POESIA: An End User Analysis of filtering expectations, SIFKAL Project, in press,

Internet Content to filter

Perceived ranked importance	UK	Spain	All Others
Crude language	5	7	6
Drugs	7	5	5
Extremist content	3	3	4
Gambling	6	6	7
Racist content	3	4	1
Sexually explicit content	1	1	2
Violent content	2	2	2

Internet Domains: perceived concerns

Similarities between countries:

- items not important – gambling, alcohol, drugs
- items highly important – pornography, violence

Differences between countries likely based on:

- Cultural differences – sex, pornography
- Political backgrounds – extremism
- Media, legal and educational focus

Outcomes likely to be influenced by 7/11

Aged 16 a threshold for filtering?

Violence	UK	Spain	All Others	Italy
Aggressive violence	68%	52%	73%	63%
Destruction of realistic objects	42%	40%	28%	6%
Injury to humans	55%	48%	50%	39%
Rape/violence	79%	59%	90%	89%
Sports related	40%	34%	42%	32%

high topics unacceptable: for under 16's low

- aged 16 not standard threshold, except violence
- relatively close agreement for filtering violence
- need for filter flexibility and adjustability

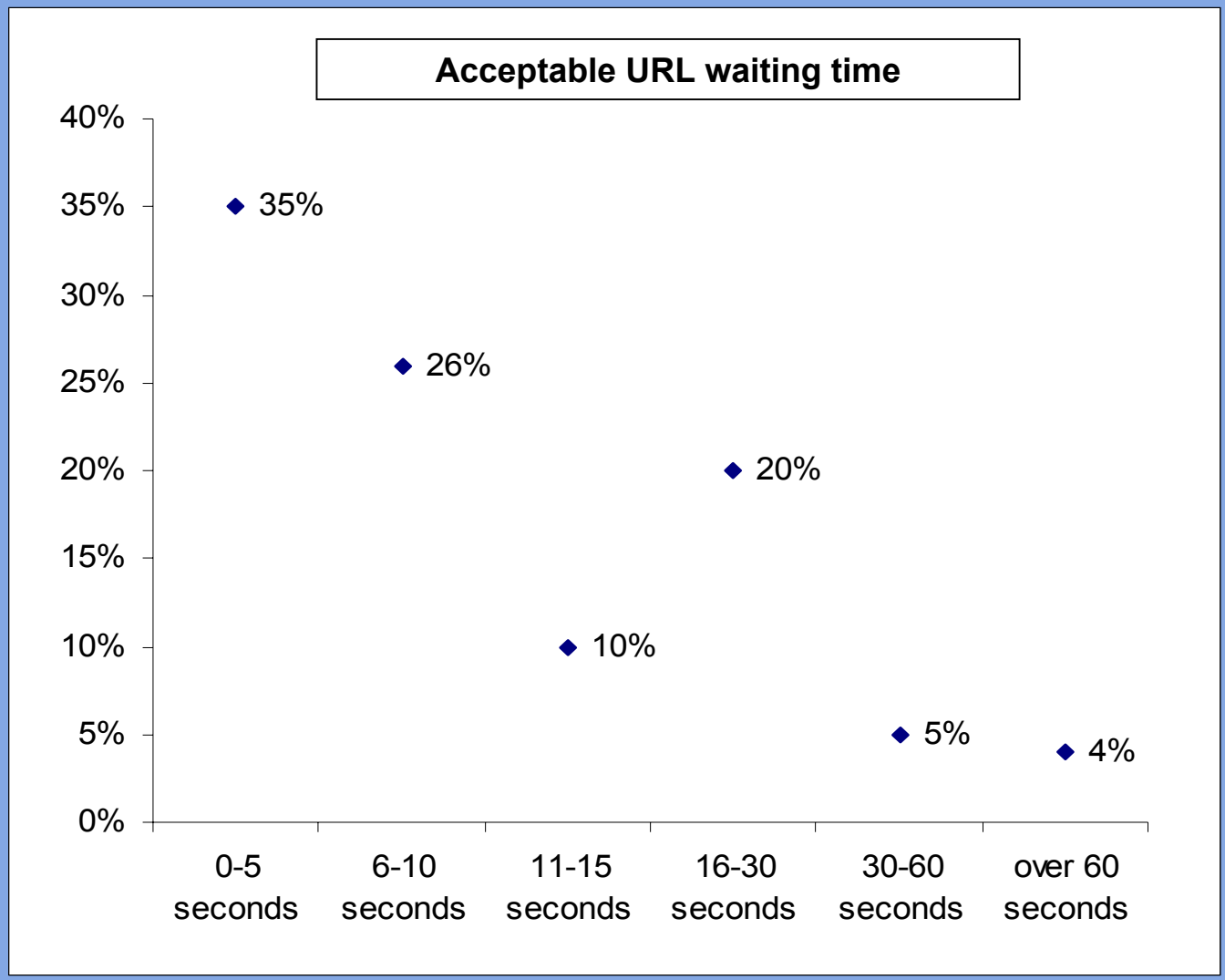
Donert K (2003), POESIA: Developing Internet filtering software - an analysis of End User needs, Proc. E-COMM LIN Conference, Bucharest, Sept 6-9

Filter Interface Characterstics

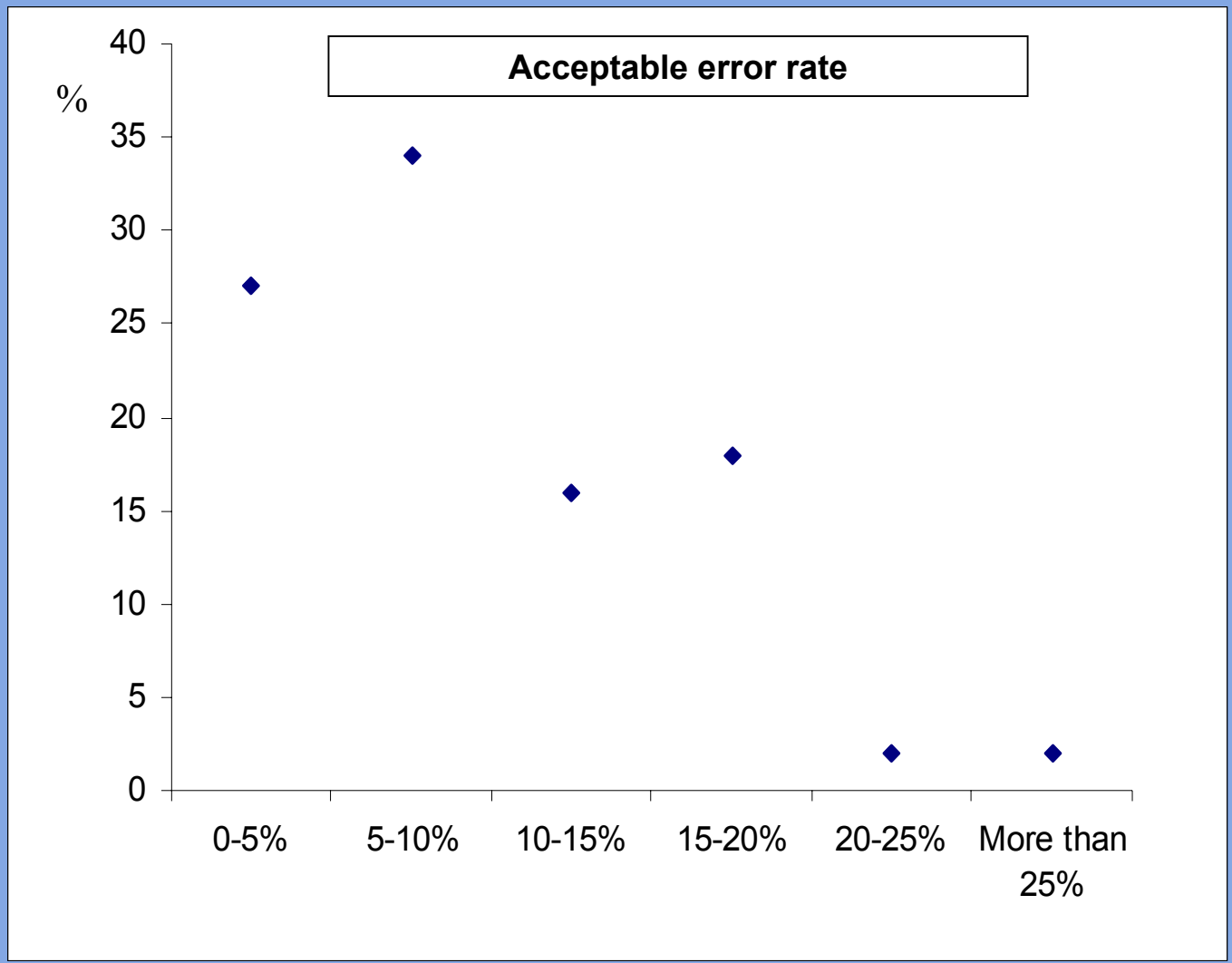
Importance of uses for filtering software	UK	Spain	All Others
Viewing/editing a list of inappropriate sites	1.2	1.6	1.9
To disable filtering software to allow access to all content	2.4	1.6	1.8
To block sites based on an edited list of words	1.7	1.8	2.2
To block sites using languages other than 1st language & English	2.3	2.1	2.6
To block sites with inappropriate pictures	1.2	1.8	1.7
To block sites with inappropriate text	1.2	1.8	1.7
To have different levels of filtering	1.7	1.6	1.6
To limit the file size	2.7	2.2	2.8
To prevent users from sending personal or other information	2.3	2.2	2.2
To prevent users viewing sites of specific domains	1.6	1.8	2.0
To track online activity by time spent on each web site	2.0	1.9	2.5
To track online activity by viewing all the web sites visited	1.9	1.9	2.3

extremely	very	somewhat	not very	degree of importance

OTHER ASPECTS: acceptable waiting time



OTHER ASPECTS: error rate



Summary

- similar channels, content concerns
- some similar interface needs
- relatively similar waiting times
- relatively similar acceptable error rates
- some significant differences in cultural opinions and attitudes between countries (to what is considered acceptable)

Summary: Internet Filtering Perceived User Needs

- **highly complex** issue
- **many factors** involved, such as:
  - use and uptake of ICT in education
  - different educational systems
  - cultural and 'historical' differences
  - impact of national education and media (UK)
- decision makers/takers have **little knowledge of real issues**, personal preferences dominate

Summary: Internet Filtering Perceived User Needs

differences between countries based on:

- knowledge, experience and expertise

results based on:

- ‘then’ not ‘now’ or ‘the future’
- availability of existing resources
- existing use of resources
- existing reliability and use of channels
- ‘personal’ rather than ‘institutional’ opinion

User Needs

- filter Web pages, Web advertising, other channels
- filter content expressed in English, Spanish, Italian
- filter GIF, JPG and BMP image formats
- filter different content (porn, violence)
- rapid response time
- flexible, configurable, customisable according to needs
- scalable and component-orientated
- free to download - open-source software

Conclusions

- open source solution provides great potential
- modular approach very desirable
- high degree of flexibility and configurability key advantages
- **important to recognise limitations**
- end users need technical expertise = **not market-orientated product**
- usability and qualitative criteria less prominent than performance = **productisation**

Conclusions

- End Users have different opinions about who needs to be protected and from what
- End Users have different opinions about what acceptable/unacceptable content consists of
- POESIA software should
  - not be limited to filtering one language
  - filter a variety of content
  - allow flexibility for users to define the content that must be rejected

Conclusions

- highly dynamic system
- further work
  - understanding End User(s) underestimated
  - why such a significant difference in adoption of filters?
  - training vital (education NOT awareness) if filters to penetrate (unsuccessful application for funding)
  - identify and highlight ‘good practice’ in uses of and experiences with filters
  - new contexts, countries and languages
  - new user technologies = mobile phones