

5.5.4 Multimedia repositories and streaming

As in the questionnaire for last year's *Compendium* (2010), this year we asked about the use of multimedia repositories (audio/video archives) and streaming services offered by NRENs. This area is becoming increasingly important in the distribution of audio/video materials created by the research and higher-education user community, and NRENs seem to be well positioned to offer such a national service. As shown by Table 5.5.4.1 (below), 17 GÉANT partner NRENs currently offer a multimedia content repository and nine others are planning to establish one. Fourteen NRENs also feature or are planning to introduce video-sharing functionality, which enables the end users to publish and manage the content they have created. NRENs as repository providers follow a federative approach, as many of them have implemented metadata exchange capabilities

in order to allow propagation of audio/video metadata to other content aggregators. The most popular technology is OAI-PMH (Open Access Initiative – Protocol for Metadata Harvest) and RSS. In 2010, a number of NRENs introduced user-initiated live streaming support.

The number of objects stored in the repositories varies greatly, from a hundred or so to thousands of objects in the Czech Republic and 20 000 object references in Spain. Clearly, there is scope for considerable growth in this area.

Interestingly, several NRENs have started to use the .tv domain for their multimedia services.

Table 5.5.4.1 – Multimedia repository services

Country	Multimedia repository	URL	Video sharing	Metadata exchange, technology used	Live streaming	Number of objects stored
GÉANT partner countries						
Croatia	yes	mod.carnet.hr	yes	oai-pmh	yes	>1000
Cyprus	planned					
Czech Republic	yes	videoserver.cesnet.cz	no	planned	yes	Thousands
Denmark	yes	www.edumedia.dk	yes	open-api	no	1747
Estonia	yes	www.koolielu.ee	yes	oai-pmh	yes	Currently very few
Finland	yes	tv.funet.fi/medar	planned	oai-pmh, rss, open-api	planned	Approx. 1500
France	yes	www.renater.fr/Video	no	no		
Germany	planned					
Greece	yes	vod.grnet.gr	planned	planned	yes	
Hungary	yes	www.videatorium.hu	yes	oai-pmh	yes	3000
Ireland	yes	media.heanet.ie	yes	no	yes	4965
Israel	yes	maor.iucc.ac.il/english.php	planned	oai-pmh	yes	300 data + 1500 meta
Italy	yes	www.garr.tv	planned	rss	yes	150 videos
Macedonia, FYRo	planned					
Montenegro	planned					
Netherlands	yes	www.surfmedia.nl	yes	rss,open-api	yes	

Table 5.5.4.1 – continued

Country	Multimedia repository	URL	Video sharing	Metadata exchange, technology used	Live streaming	Number of objects stored
GÉANT partner countries						
Norway	planned				planned	
Poland	yes	fbcpionier.net.pl	planned	oai-pmh	yes	
Portugal	yes	www.zappiens.pt	yes	oai-pmh	yes	1750
Romania	planned					
Slovakia	planned					
Slovenia	planned	www.arnes.si/storitve/ multimedijske-storitve/ videoarhiv.html	planned	planned	yes	
Spain	yes	arca.rediris.es	no	rss	no	20 000 object references
Sweden	planned					
Switzerland	yes	cast.switch.ch	yes	oai-pmh	no	
Turkey	yes		no	no	yes	
Other countries						
Algeria	planned					
Azerbaijan	planned		planned		no	
Bosnia/Herzegovina	yes		yes	rss		
Moldova	planned					
Morocco	planned					
Russian Federation	planned	www.fcior.edu.ru				
Serbia	yes	media.amres.ac.rs	yes	no	yes	136
Australia	planned					
Brazil	yes	video.rnp.br	yes	oai-pmh, rss	yes	900
Kazakhstan	planned					
Kyrgyzstan	planned					
Malaysia	planned					