

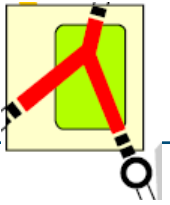
Enhancing Landscape Experiences by Interactive Location Based Services

Ron van Lammeren

Centre for Geo-Information, Wageningen University | SCW - 19/11/2008



Digital Dowsing Rod - pilot



- (personal) route
- related POIs
- of (cultural-historic) information
- for **responsive** and **reactive** tourists
- via mobile technology [3G]
- based on interoperable web services



Objectives Digital Dowsing Rod



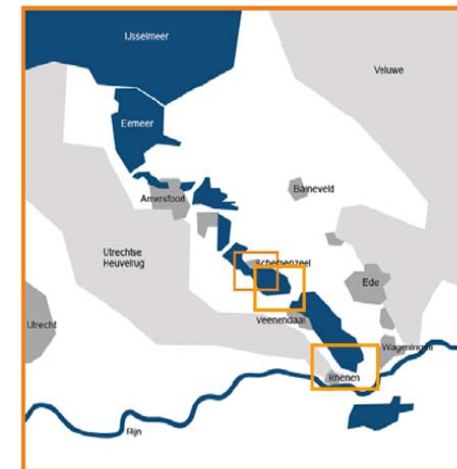
- ILBS Technology acceptance
 - Impact on human experience
 - Impact on human behaviour
-
- Methodology
 - Some Results
 - Next Steps



Study area: Grebbe linie



famous for:
fortification and inundation remnants
of a historical
Dutch military defense system
originally 17th century constructed
and even used in 2nd world war



Methodology Digital Dowsing Rod



■ Technology acceptance

- In-take questionnaire [5 minutes]
- Out-take questionnaire [20 minutes]

Perceived usefulness

Perceived Ease-of-Use

Perceived Enjoyment

Surplus value

Motives

■ Impact on experience

- Tracking of movement and interaction
[15 minutes instruction; max. 150 minutes
during 5 weekends]

Track logs

POI logs [parlance]

Contentwise

■ Impact on behaviour

- Hypotheses based on analysis

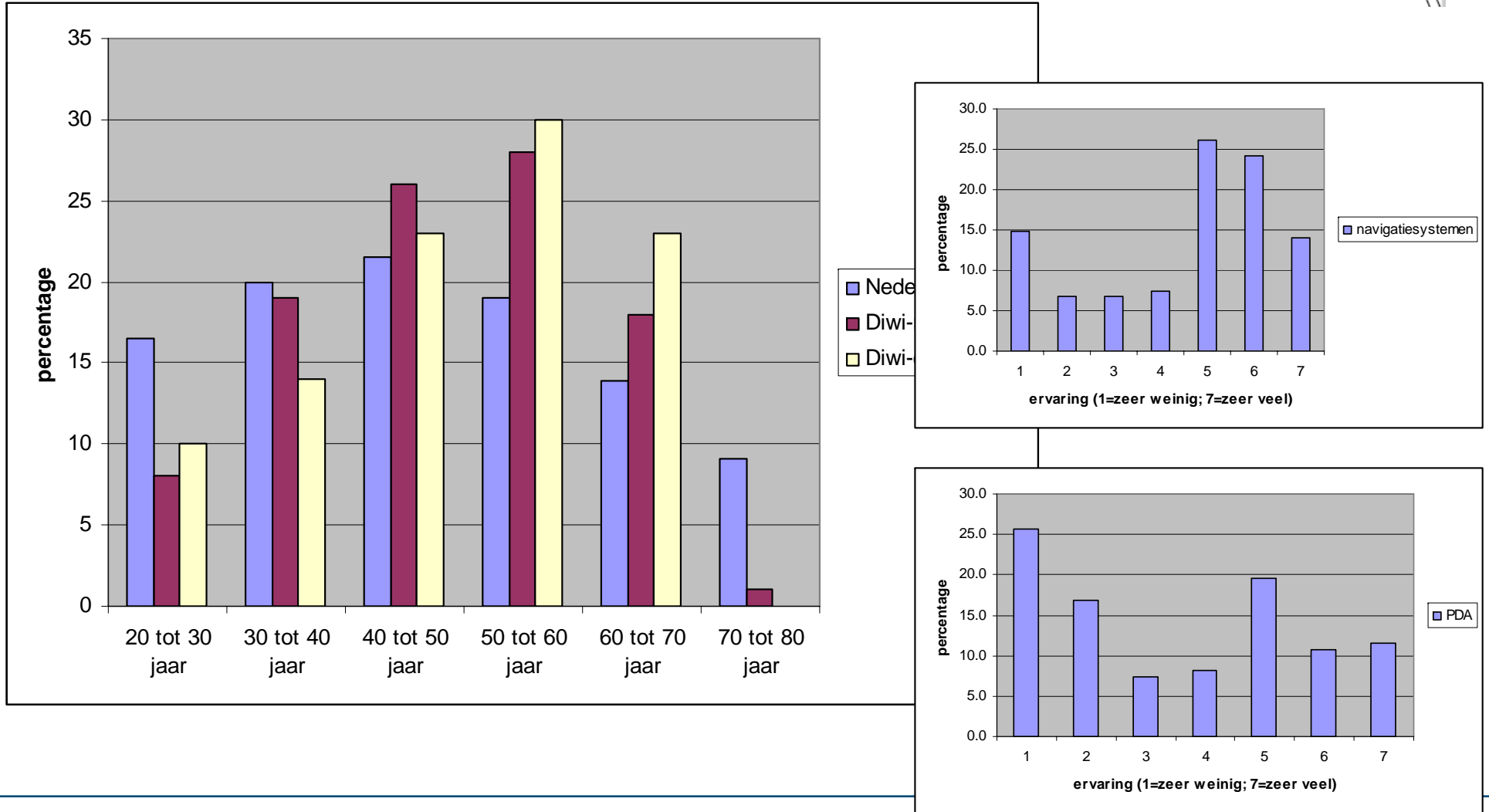
Study Area - Grebbelinie - data



- 387 potential users
- 150 valid user results
- 3 locations
- 20 routes (7 – 7 - 6)
- 580 POIs (174 POIs route related)
- 345 parlance POIs



Comparison DiWi users – Dutch population



Test group



Mentality-group	Diwi-registered (in %)	Diwi-valids (in %)	Netherlands (in %)
Traditional middle class	9	3	18
Convenience oriented	3	1	9
Modern middle class	<u>6</u>	<u>7</u>	<u>22</u>
<i>New conservatives</i>	5	5	8
Cosmopolitans	18	25	10
<i>Social climbers</i>	4	3	13
Post materialists	32	35	10
<i>Post modern hedonists</i>	19	20	10
No data	3	1	

Impact on experiences: perceived enjoyment



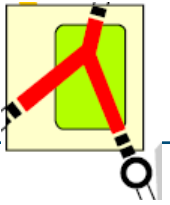
belevingswaarde

Variable	Average Score
Risky	4,8
Boring	2,9
Only enjoyable for the person who carries a PDA	4,0
Exciting	4,3
Not for a group	3,7
Unique	5,0
Interesting	5,7
Disturbs the landscape perception	3,5

percentage

oordeel (1=laag; 7=hoog)

Impact on experiences: why



Reason	Mentioned Nr of times
Information	43
Location based Information	27
Navigation/GPS	20
Interactive	13
Instead of signs, info panels, maps	13
Surprisingly nice to use	11
Media types	11
Real landscape is much more attractive	7

POIs and Parlance POIs



- parlance POIs
- POIs
- POIs - other

Downloads of POI's



- Average downloads: 7 POIs
- Average downloads: 2 Parlance POIs
- N% of POIs users: 93%
- N% of Parl POIs users: 56%

Number	POI		Parlance POI	
	N	%	N	%
0	11	7	72	44
1	6	4	26	16
2	11	7	17	10
3	15	9	10	6
4	13	8	16	9
5	17	10	4	2
6	10	6	7	4
7	17	10	3	2
8	12	7	2	1
9	6	4	1	1
10	8	5	3	2
11	7	4	0	0
12	9	5	2	1
13	5	3	0	0
14	2	1	0	0
15 or more	14	10	0	0
Sum	163	100	163	100

Impact of parlance POIs: a qualification



Content	Average score
Attractive	3,6
Interesting	3,2
Parlance texts are superfluous	4,3
Parlance pictures are superfluous	4,5
Parlance movies are superfluous	4,5
Offered new information	3,2
Added information is worthwhile	3,5

Conclusions



- Positive impact on experiences
- Parlance POIs are experienced as superfluous
- Contradiction between POIs and Parlance POIs
- More knowledge needed about the WWW of Parlance POIs

Sensed Directions of Parlance POIs



- Content standards
- Ranking principles

- Link to Mentality groups
- Spatial distribution [cluster, link to routes/trips]
- Temporal distribution [cluster, link to locations]
- Spatial-temporal patterns [cluster, link to routes and areas]

- Translation into behavioural studies

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Ron van Lammeren, thanks to Martin Goossen and Paul Roncken
Centre for Geo-Information, Wageningen University, 2008

www.geo-informatie.nl

