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[This is just a teaser slide, intended to be up there while I'm being introduced.]

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I thought it was opportune to commence by reminding us all that ACIS is 25 years young.

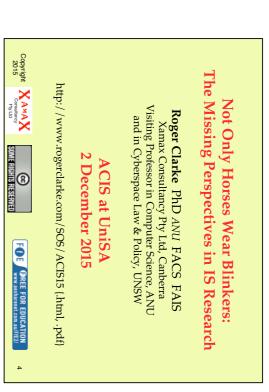
Due to the familiar problem of formats becoming unreadable, I can't show you a document from 1990, but my archives do contain files from 1992.

You can see that we still have continuity. Ross and Ron are active Emeritus, Peter Weill is <u>still in harness</u> at MIT, and Igor and myself are on the program this year.



Talking of being in harness, I want to talk about this.

No, not the horse. The blinkers.



And I'm not talking about the horse wearing the blinkers.

I'm talking about <u>you and me</u> wearing them.

My contention is that, because we wear blinkers, published IS research exhibits tunnel vision.

In order to construct my argument, I need to first explain what I mean by the particular kind of 'perspectives' that I believe to be being filtered out by the single-minded commitment that pervades a great deal of our work.

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Let's take the case of mainstream 'scientistic' research.

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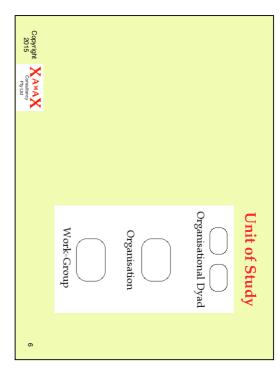
But no sign of 'Perspective'

Data Analysis Design

Survey Design Data Collection Design

When we design our research method, we consider many factors, like the ones listed here.

But neither our text-books nor our practices ever consider the 'perspective' that the research is to adopt.

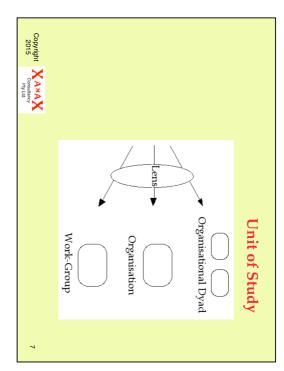


To get to grips with the perspective notion, let's start with the 'unit of study'.

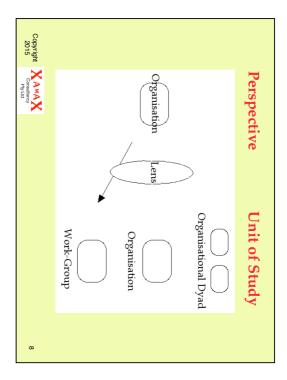
We think about the phenomena that are of interest to us.

Then we make a decision about the level of abstraction at which we're going to observe those phenomena.

For example, we might choose a part of an organisation, the whole of an organisation, or a collection of organisations.



Then we choose a theoretical lens through which we're going to conduct our observation of those phenomena, at that level of abstraction.



Then we conduct the observation

But when we look through the lens, at the phenomena, where are we standing?

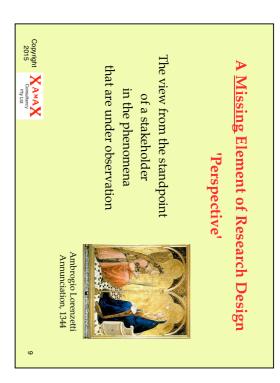
This diagram depicts a common category of research.

What we're looking at here is the dynamics of a workgroup within a corporation or government agency.

And we do look at it from that organisation's own standpoint. That's what I mean by the perspective that a particular piece of research work adopts.

Ways in which we can recognise the perspective that a research project has adopted are by identifying:

- whose interests are reflected
- who is the intended beneficiary of the work, and
- to whom is the report addressed



So my proposition is that we need to define a notion of 'the perspective from which a particular piece of research is conducted'.

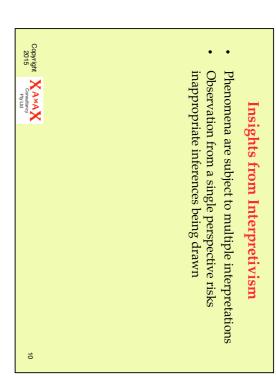
Here's a working definition, one that will not be the last word on the subject, but one that's useful as a basis for discussion.

It uses the mainstream idea of 'stakeholders'.

And we adopt the perspective of one of them.

Just as painters learnt to do in Siena and Florence, first with this painting in 1344 (look at the floor-tiles), and almost universally after Brunelleschi's demonstration to his peers in 1415.

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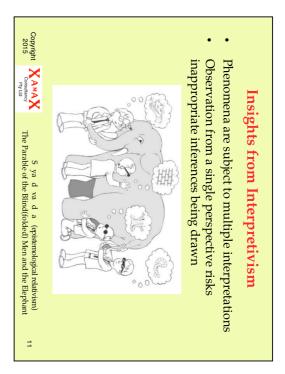
But haven't we been here before?

Didn't interpretivism embody this 'perspective' idea?

Well yes, it made the idea familiar and it's become respectable within the IS research community.

We recognise that there are multiple perspectives.

And we accept that, if phenomena are observed from only one of those perspectives, the inferences that are drawn from the observations may be inadequate.



But of course that insight goes back 2500 years, because it was summed up in a postulate that's intrinsic to Jain philosophy.

It's widely known through the parable of the elephant and the blind men.

Put simply, people who grab hold of bits of a complex phenomenon are likely to describe it very differently from one another.

An elephant is merely big.

A lot of IS research deals with considerably greater complexity than that exhibited by a pachyderm.

So we can get ourselves, and people who listen to us, into a much more complicated pickle than the people in the cartoon.

Insights from Interpretivism

- Phenomena are subject to multiple interpretations
- Observation from a single perspective risks inappropriate inferences being drawn

Implications of Interpretivism

- The researcher has a perspective
- The researcher's perspective influences research conception, questions, design, analysis, results If a researcher ionores the question of perspective
- If a researcher ignores the question of perspective, they blindfold themselves or wear blinkers

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So we need to apply these initial insights to our own circumstances:

Firstly, as a researcher, I have a perspective

Secondly, that perspective influences the conduct, and outcomes, of the research that I conduct.

Thirdly, if I fail to consider what that perspective is then I've willingly blindfolded myself.

Or, to stick with my original metaphor, I've worn blinkers, and thereby restricted my ability to understand the phenomena that I'm observing.

Yet the AIS eLibrary contains only 2 articles that address 'teleology' – in a corpus of 30,000 papers.	selected stakeholder that drive the design and conduct of the research.	The notion of 'teleology' has to do with purpose. This relates to perspective, because it's the interests of the	within the IS discipline, and yet we overlook one important one.	But it seems to me that we discuss several 'ologies'	We need to ask the likes of Ron Weber, Peter Seddon and Shirley Gregor about such things.	I'm not educated or erudite enough to do this justice.	research <u>philosophy</u> .	The missing element in our research <u>design</u> may be	Copyright 2015 XAMAX 2015 Als eLibrary: 30,000 Entries 0 in Title, 3 in Abstract, 60 in body 13	whose perspectives the purpose reflects)	Teleology (knowledge about purpose, and hence	We seldom discuss:	Methodology (knowledge about process)	Epistemology (knowledge about knowledge)	Ontology (knowledge about existence)	We discuss:	A Missing Element of Research Philosophy
one of these dime of all the other per	For many years, I is wedded to just	interest group suc Or the focus could	The interests of a Or research could	such perspectives	I've organised the to the values that	Here are some that	In practical terms,	Enough philosoph	Copyright XAMAX 2015 Consultancy Phylidit	Sub-Organisation	Strategic Partners Oreanisation	Regional Economy Sector / Value-Chai	Nation-State	Supra-National Reg	Dimension Warld Economy	Economic	Α

Alternative Perspectives Economic Dimension Social Dimension Environmental Dimension World Economy Humanity The Planet Supra-National Region (e.g. EU, NAFTA) A Society The Planet Nation-State A Society The Troposphere Regional Economy A Community The Biosphere Sector / Value-Chain A Community The Biosphere Brategic Partners A Person A Localised Ecology Sub-Organisation A Person A Localised Ecology Sub-Organisation Method Society The Biosphere	ç										1
vironmental Dimension Planet Proposphere Biosphere Biosphere Biosphere	×	Sub-Organisation	Organisation	Strategic Partners	Sector / Value-Chain	Regional Economy	Nation-State	Supra-National Region (e.g. EU, NAFTA)	World Economy	Economic Dimension	Altern
vironmental Dimension Planet Proposphere Biosphere Biosphere Biosphere	//www.rogerclarke.com/SOS		A Person		A Community		A Society		Humanity	<u>Social</u> Dimension	ative Perspecti
			A Localised Ecology		The Biosphere		The Troposphere		The Planet	Environmental Dimension	ves

hy.

what perspectives are relevant?

nat a researcher might adopt.

s are adopted. em into three dimensions, according are of greatest significance when

ld be a local, frog-supporting swamp. d be performed for a commonch as the sight-hindered. regional economy can be prioritised.

ensions, to the substantial exclusion erspectives. one of these perspectives, within just I've considered that the IS discipline

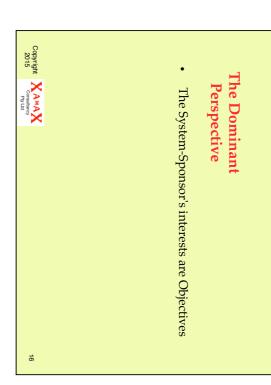
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My belief has been that most IS researchers, when they conceive, design, conduct and report research, have in mind the interests of a particular organisation or category of organisations.

I typify the mainstream perspective as being that of 'the System-Sponsor'.

And I assert that this perspective is so common in our work that it's dominant and simply 'goes without saying'.

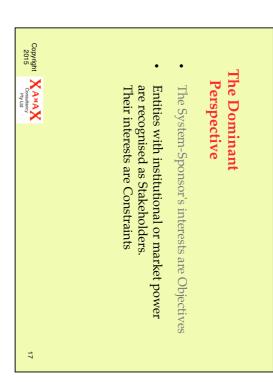
And I think that's a big problem with our discipline.



I look at it this way.

The System-Sponsor's interests dominate IS research.

So we recognise that organisation's interests as determining the Objectives.



Some other entities are sufficiently powerful that they demand attention.

We call them Stakeholders

We try to reflect their interests in the design.

But they're Constraints on the System-Sponsor's freedom of action, rather than Objectives.



Meanwhile, the less powerful stakeholders don't have a place at the table. They're left outside the room.

The very existence of the genre of 'barriers to adoption' research is a symptom of a great malaise in our discipline.

If we studied the whole system, and reflected the interests of all stakeholders, we would have factored all of the needs into the design in the first place.

There would of course be design errors, and there would be changed contexts, and changed perceptions of need. But there would be no 'impediments'.

We invented that whole genre. We invented it because IS <u>practitioners</u> wear blinkers, and IS <u>researchers</u> aid and abet practitioners, and have consequently followed them down the cul de sac

The first 6 examples are the mainstream. The last example was atypical.	The easy way to summarise a paper for this purpose is to present its (abbreviated) research question.	I carefully examined all 40 of the papers at the Bled eConference last year. The preponderance of papers were indeed from the System-Sponsor's perspective.	So, during the last couple of years, I've been doing some empirical research, to date admittedly of only modest quality.	anecdotal, biassed, and maybe downright bigotted.	Okay, my contention that IS research is dominated by	Copyright XAMAX 2015 XAMAX 2015 Bled eConference 2014 19	Why are people concerned about location sharing?	How can we best exploit the crowd?How can we de-anonymise the customer?	Will people submit to pervasive wellbeing monitoring?	 How can we use social media to influence people? How do we buy-off people's privacy concerns? Can lifetime eHealth Records be imposed on people? 	Research about People, but for Organisations
	order to reduce c	IS discipline. After all, IS practi time to enable or	This is the first of I believe that this	I've contrived this serve the purpose	Let's test out my	Copyright XAMAX 2015 Consession Physical				Let's stop se What wi	A Te

Copyright XAMAX 2015 Consultance Consultance	Let's stop sending printed invoices through the post. What will be the impacts on the organisation?	A Test of the Perspective Notion
8	post. n?	

_et's test out my proposition another way.

/e contrived this particular research question so as to erve the purpose.

This is the first of a series of research questions.

I believe that this one sits very comfortably within the IS discipline.

After all, IS practitioners build business cases all the ime to enable organisations to take advantage of IT in order to reduce costs.



What about this one?

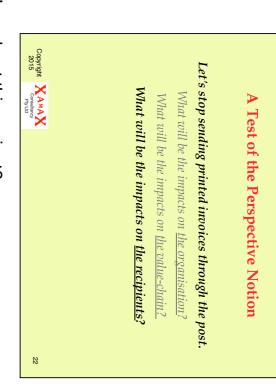
In B2B contexts, an organisation's suppliers and customers form a chain.

The chain is worth studying.

And we can observe the phenomena from the viewpoint of the chain as a whole.

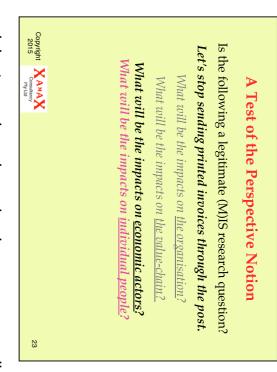
So that's pretty clearly IS research as well.

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How about this variant?

It's subtly different, so we need to unpack it.



The recipient may be a large business, or a small or micro-business, or a consumer.

If we focus on costs, or on service, we remain in the economic dimension.

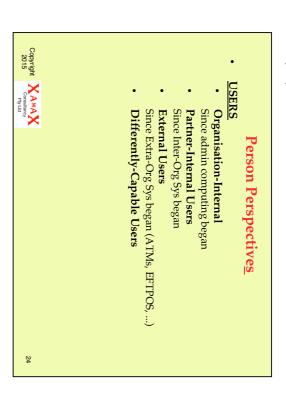
But we also have to allow for people, on the social dimension. (Hence the pinko colouring).

As a consequence of the change, some people won't receive their invoices, and hence won't pay them.

And so maybe their electricity will be cut off.

Particularly for people who are heavily dependent on electricity, there may be significant implications.

Such as health, comfort and the embarrassment and confusion of dealing with remote and unhelpful corporations, and with debt collectors.



I've represented the 'social' as a single dimension. But it's actually multi-facetted.

For starters, we've talked about 'users' for 50 years

Early users had forms and printouts. Then came terminals, and later PCs. And, once systems became <u>inter</u>-organisational, users of one organisation's systems were sitting in partner organisations.

Then, as <u>extra</u>-organisational systems arrived, users came to be outside organisations altogether.

And it's important to recognise many segments of users, with different characteristics and capabilities.

And large-scale systems organisations don't always get to cherry-pick their targets. For some organisations, <u>all</u> user segments need to be accommodated.



And then there's the 'prosumer' notion.

Its origins date way back to 1970, but it's finally getting up to bite systems designers.

Organisations want to take advantage of people's labour to capture data, and they want to encourage people to donate personal data and content.

That's the heart of Web 2.0 and 'content syndication', because it enables more detailed profiling of consumers' behaviour and proclivities.

But to sustain the inbound flow of gifts, organisations need to fulfil prosumers' needs.

Copyright XAMAX 2015 Consultancy Phy Ltd People who are affected by an information system USERS 'USEES' **Organisation-Internal** Since Toffler identified the category in 1970/80 Differently-Capable Users Since Extra-Org Sys began (ATMs, EFTPOS, ...) External Users Since Inter-Org Sys began Partner-Internal Users Since admin computing began 'Prosumers' Proactive Producer-consumers' expect Professionalism) Person Perspectives 26

Meanwhile, we continue to overlook another longstanding category.

The term 'usee' has been in existence for decades, and yet it's still completely outside the mainstream.

It refers to people who aren't users of a system, but who are affected by it.

Think about the data subjects in police intelligence files, and in tenant information and credit reporting systems.

The reason the term 'usee' is outside the mainstream is because the categories of people it refers to are too

They're outside the system – non-stakeholders – capable of being ignored.

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IS practitioners can choose among several ways of looking at people; and IS researchers follow them.

The current fashion is to use the word 'actor'.

But actors don't do whatever they want to do.

Spielberg is right in behind Tom Hanks, dictating his behaviour. Hanks obeys, which is why Hanks keeps getting plum roles in Spielberg films.

The notion of 'actor' is manipulative. It's much closer than we prefer to admit to old 'Theory X' precepts of humans as resources, and consumers as prey.

We've had the notion of 'participative design' for almost as long as IS has existed, but it keeps getting suppressed or lost, because we deny even users, let alone usees, a place at the table.

A Test of the Perspective Notion Is the following a legitimate (M)IS research question? Let's stop sending printed invoices through the post. What will be the impacts on the organisation? What will be the impacts on the value-chain? What will be the impacts on economic actors? What will be the impacts on individual people? What will be the impacts on forests?

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I've spent a bit of time on perspectives within the social dimension, because I do see the substantial ignoring of it as being one of the worst features of the IS discipline over the last several decades.

We've let US Business School thinking dominate not just the MIS sub-set of the discipline, but the IS discipline as a whole.

But we've also done pretty badly in dealing with the environmental dimension.

Extending the earlier test, we could also ask what the effect of no longer printing invoices might be, on forests.

Would that be regarded as a legitimate IS topic? Or do we think that's up to someone else to consider?

The Environmental Dimension If we stop sending printed invoices through the post, what will be the impact on Forests? What are the key factors to be considered when evaluating the Sustainability Profiles of alternative designs for information systems? How can eCommerce theory be most effectively applied to Carbon Trading? (Expected Citation-Count - 20; Actual - 1)

Impact on forests is one example of a perspective on the Environmental Dimension.

There are also various possible topics in the Sustainability area.

And the third one here is real, not imagined.

published a research paper on the topic in 2009.

Among over a dozen mature papers I've published in that particular venue (the Bled eConference), the average number of citations they've got is about 20.

But that paper has excited the least interest of any refereed paper I've ever published, with just a single citation.

80	4%	363			
0	10	243		253	Total
	_	35	20%5	36	ACIS
0	2	92	100%	38	SIC
	2	43	100%	4J	Bled
0	2	41	100%	43	EJIS
	04	40	10%	43	AMCIS
0	0	48	100%	48	ISR
Dimension	Dimension	Dimension	Size	Sample	Venue
Envmtal	Social	Economic			

After I looked at the Bled Proceedings for 2014, I decided to extend my assessment to other venues

I compared the papers in the 2014 Volumes of three IS journals with a similarly-sized sample of papers from three IS conferences.

I hesitate to make any substantial external validity claims at this stage; but as I take the work further, I suspect I may be able to make some strong statements.

The dominance of the Economic Dimension is turning out to be even greater than I'd imagined it to be.

And, among the over 300 papers I've assessed so far, I've yet to find a single one on the Environmental Dimension. There are 'green IT' topics, but the primary values evident in them are economic.

298	5%	92%5			
6	13	234		253	Total
60	2	51	20%	36	ACIS
	_	37	100%	38	SIC
	64	41	100%	4J	Bled
2	2	62	100%	43	EJIS
	4	62	10%	43	AMCIS
	_	47	100%	48	ISR
Multi- Per <u>spective</u>	Other Party	System <u>Sponsor</u>	Size	<u>Sample</u>	<u>Venue</u>
	Perspective				

The previous slide looked at the Dimensions.

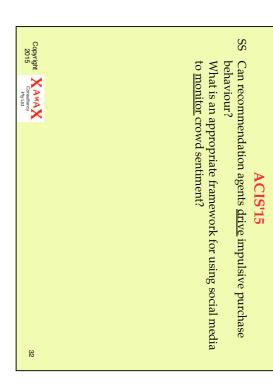
This table summarises the data from the same pilot study, but this time relating to the Perspectives from which the phenomena were observed.

Other Parties in the second-last column included social media users, the aged, and rural households.

A few articles reflected two perspectives, in most cases the System-Sponsor and some other party.

But the dominance of the System-Sponsor's perspective is clear to see.

So the provisional data supports the proposition.



I was granted early access to the ACIS 2015 crop.

There are some good examples of System-Sponsor perspectives.

And I need to make quite clear that I'm not for a moment suggesting we shouldn't be doing such research! It's mainstream, and it should be.

My concern is with its dominance.



But there are also some good examples of Perspectives other than that of the System-Sponsor.

The U instance is for Users of social media, rather than for the service-provider, or for the organisations that seek to exploit the data or the users.

There are also examples of M for Multi-Perspective research.

The design is seldom sophisticated, but this instance expressly treated quality as reflecting the needs of both the health care organisation and the patient.

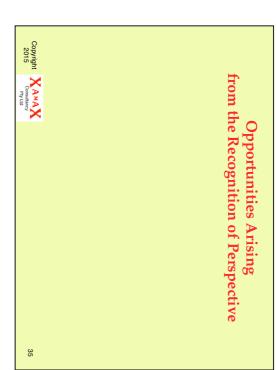
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Soc What is the correlation between uses of ICT and health SS \leq 2015 XAMAX 2015 Consultancy Pty Ltd How do social media affordances affect the shared Can pathology reporting be <u>improved</u> through business Can recommendation agents drive impulsive purchase outcomes in Africa? (Social Dimension) intelligence report design techniques? to monitor crowd sentiment? bridging for households in rural communities? (Social) Does broadband connectivity maintain bonding and perception of place? What is an appropriate framework for using social media behaviour? ACIS'15 34

And some papers adopt a perspective that is distinctly on the social rather than the economic dimension.

Preliminary results have suggested that the ACIS community is at least as well attuned to alternative perspectives and dimensions as any of the other primary IS venues, and may even be a couple of percentage-points better.

But don't gloat. The difference between 14% and 10% may not be statistically significant.



I originally feared that my conclusions from this analysis were going to be overwhelmingly gloomy.

But they're not.

One reason is that some IS research is undertaken from perspectives other than that of the System-Sponsor. And some of it is on the Social Dimension.

Another reason I'm positive is that the analysis leads to some opportunities for the discipline, and for you, the future of the IS discipline.

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Let's go one more step with the test I've been using.

Rather than limiting ourselves to descriptive, explanatory and predictive statements, we could combine a multi-perspective approach with normative mode, and actually do something useful.

Both action research and design research are 'constructive', because they adopt normative mode, and they aim to deliver an outcome.

Action research is by its nature multi-perspective.

Design research can be as well, provided that it is conceived, conducted and reported with multiple stakeholders in mind, and with their perspectives reflected.

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I think we should be thinking about airborne drones.	He argues that we need to be ambitious, and ask some questions that are bigger than those that individual corporations want answered. The AIS eLibrary shows that we've failed to tackle those topics.	But the inspiration, and the first three topics, came from Frank Land, who was there at the desk when computers were first applied to administrative tasks, in the UK in 1952, and who established the IS discipline at LSE and at the London Business School.	The last two are my own examples.	And researchers who master the techniques involved in adopting multiple perspectives can tackle some 'big picture' issues that we as a discipline have seldom addressed in the past.	Copyright XAMAX 2015 Computer Phylind 37	 IS for Appropriate Resource-Usage Target Acquisition by Airborne Robots (1 in Abstracts in AISeL) 	 'Big Picture' Issues Pornography as a Driver of Net Traffic Videotex Web P2P Netflix (2 in Abstracts among 30,000 entries in AISeL) Role of IS and ICT in the GFC Sexting (0 in Abstracts in AISeL)
			But we shouldn't wait until we're 84 to do it!	And airborne is what Frank was on his 84th birthday not long ago. The rest of us need to be like Frank, and choose our challenges boldly and ambitiously.	Copyright XAWAX 2015 Company Physics 38	 IS for Appropriate Resource-Usage Target Acquisition by Airborne Robots (1 in Abstracts in AISeL) 	 'Big Picture' Issues Pornography as a Driver of Net Traffic Videotex Web P2P Netflix (2 in Abstracts among 30,000 entries in AISeL) Role of IS and ICT in the GFC Sexting (0 in Abstracts in AISeL)



As they say on TV, "In Breaking News just to hand ...".

AJIS announced the release of a Special Section last Friday, just as I was finalising this slide-set.

Next time you're thinking about doing some research on yet another refinement to the Technology Acceptance Model, have a think about 'big picture issues' like the contributions IT can make to quality of life in communities under pressure.

Hands up all those people who are studying what IS can do for people in remote communities, and in internment camps.

What about Public Policy?

- A matter of regional or national significance
- Has social, economic and environmental aspects
- Requires negotiation of Objectives and Principles
- Steps to achieve the Objectives include:
- Regulatory Measures
- Resource Allocation
- Conception, articulation and implementation of Programs of Action
- Depends on multi-organisational **collaboration** across the public, private and voluntary sectors

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4

We've been flinching away from Public Policy issues for far too long.

Sure they're challenging.

By recognising the importance of perspective, we'll be able to stop running away from our responsibilities.

Why should it be up to other disciplines to tackle the big, interesting and important questions??

If it involves information, and systems that handle information, then surely it's within our scope.

Features of Public Policy Research

- The Driver is desire to address a Problem of an economic, social and/or environmental nature
 The Purpose is to devise possible Solutions,
- evaluate them, articulate them, implement them
- The mode is Normative, <u>not</u> merely descriptive, explanatory or predictive
- The mind-set is Instrumentalist, <u>not</u> Pure (pursue knowledge) or Applied (of a tool)
- Quality is essential, whereas Rigour is desirable

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Public policy research <u>does</u> require breadth of expertise, and the skills involved are somewhat different from the mainstream in contemporary IS research.

And certainly not everyone in the discipline should switch their focus entirely to such questions.

On the other hand, there are organisations out there that need the help of people in the IS discipline to address questions that straddle the Economic, the Social and the Environmental.

Opportunities Arising from the Recognition of Perspective

- Comparative-Perspective Research leading to better insights for System Sponsors
- Multi-Perspective Research
- Better Constructivist Research
 e.g. Participative Design Science
- Phronetic Research, to complement Episteme (Science) and Techne (e.g. Design Science)
- Instrumentalist rather than Applied Research
- Research in support of Public Policy

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But public policy research might be a bridge too far for some people in the IS discipline, so I've put it last.

Other opportunities don't require us to be quite so bold.

We can compare the expectations of managers and of staff-members, and of designers and of users, by conducting research from both perspectives at once.

We can do design research that doesn't just tell the system-sponsor what he wants to hear. We can do that by embedding participative notions in the process

We can drive our research topics based on problems perceived by the various stakeholders, not on the basis of the tools at our disposal.

And such approaches can significantly improve the value of our research results.

Implications for Individual Researchers (1) Discover perspective as an important element of research conception, design, conduct and reporting (2) Deliberate on the alternative perspectives that are relevant to the context (3) Determine the perspective(s) to be adopted (4) Declare the perspective(s) adopted

The absence of 'perspective' from our list of research design parameters has undermined the value of our work.

We can do better.

As individuals, we need to recognise the nature of perspective and its influence on research work.

We can then evaluate the options, and actively choose our perspective.

Often it <u>will</u> be that of the system-sponsor; but that will be an active choice, made with an appreciation of the consequences of that choice.

It's then important that we make clear to our readers what our perspective has been, and what strengths and weaknesses that aspect of the research design gives rise to.

What {MIS? WI? IS/IM?} Needs to Do

- Acknowledge the existence of perspectives other than that of the client / system sponsor
- Acknowledge in particular the perspectives of users, prosumers and usees
- Recognise them not merely as 'actors'
 Embrace participative analysis and design
- Embody explicit recognition of human
 diversity, i.e. a rich set of segmentation models
- Include individuals' representatives and advocates within 'business / people processes'

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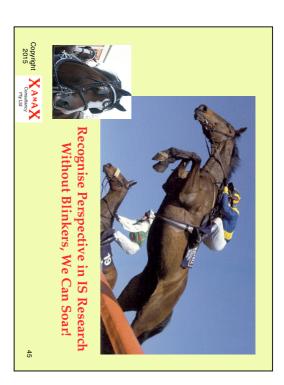
Will this be an easy change?

Probably not. There's a lot of momentum within the discipline as it stands, and age brings conservatism.

The gatekeepers include editors and program chairs, reviewers, staff selection committees, promotions and review committees, and research funding committees and their assessors.

If you're one of those already, or as you become one of those, you need to respect colleagues who adopt alternative perspectives, and engage with them, not treat them as outcasts or second-rate citizens.

You need to tolerate and encourage diversity in the perspectives adopted by other IS researchers, so that we can build from our base, not ossify in place.



To return to the opening metaphor ...

We've blinkered ourselves for too long.

Recognise Perspective in IS Research.

Without blinkers, we can soar.

2015 Consultancy 2015 Phy Ltd The Missing Perspectives in IS Research http://www.rogerclarke.com/SOS/ACIS15 {.html, .pdf} Not Only Horses Wear Blinkers: Visiting Professor in Computer Science, ANU and in Cyberspace Law & Policy, UNSW Roger Clarke PhD ANU FACS FAIS Xamax Consultancy Pty Ltd, Canberra CENTRE STREET ENVIRONMENT 2 December 2015 **ACIS at UniSA**

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