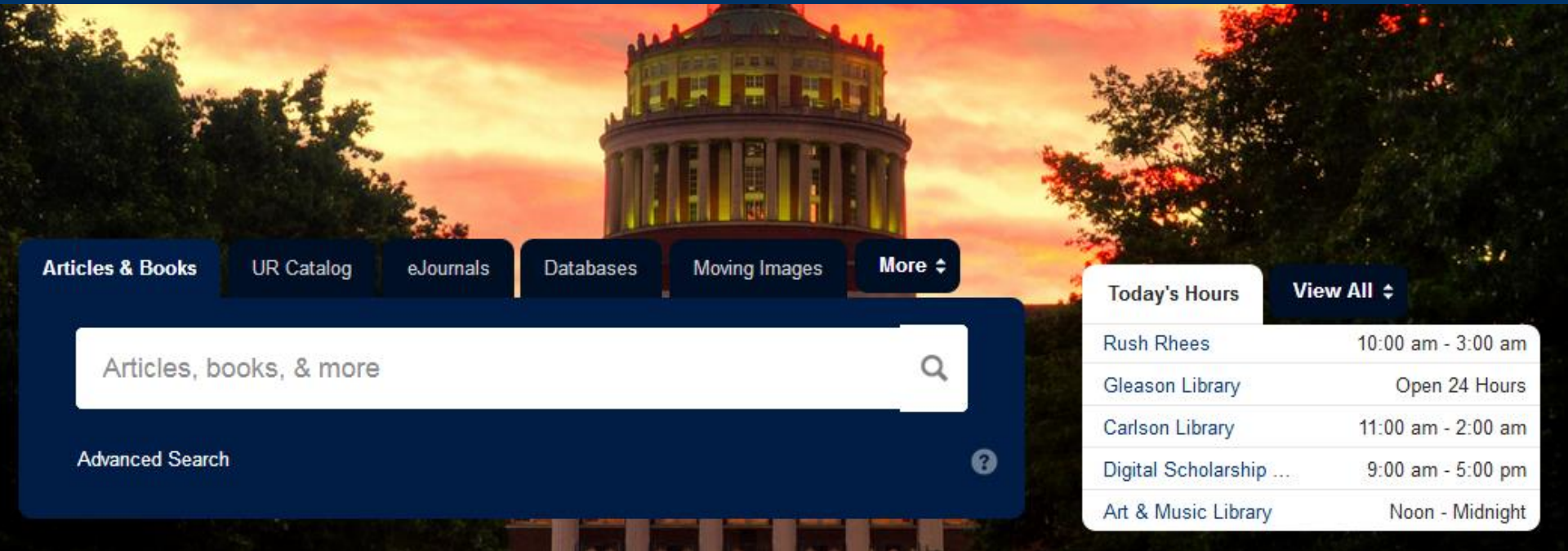


Faculty Persona Development for a University Library Website Redesign



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UNIVERSITY OF ROCHESTER

University of Rochester River Campus Libraries



“With more than 3.5 million volumes, extensive digital resources, and world-renowned collections of rare and unique materials, the River Campus Libraries forms the intellectual foundation of learning and research at the University of Rochester.”

“The libraries are committed to providing expert research assistance, increasing access to digital and physical resources, and developing technology-enriched spaces.”

(River Campus Libraries:

<https://www.library.rochester.edu/>



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Libraries in Transition

- Information access is ubiquitous
- Scholarly materials are made available online
- Library website redesign can provide a path to modernization and renewal
- Evaluation data can provide a better understanding of behaviors, preferences, and needs of the university community



Project Context and Goals

- Gather data to guide website redesign efforts.
- Evaluations sourced guidance from multiple stakeholders including students, faculty, and library staff
- For each stakeholder, we sought to:
 - Examine satisfaction with the current library website;
 - Establish ways they search for library materials; and
 - Uncover unmet needs.



Evaluation Questions

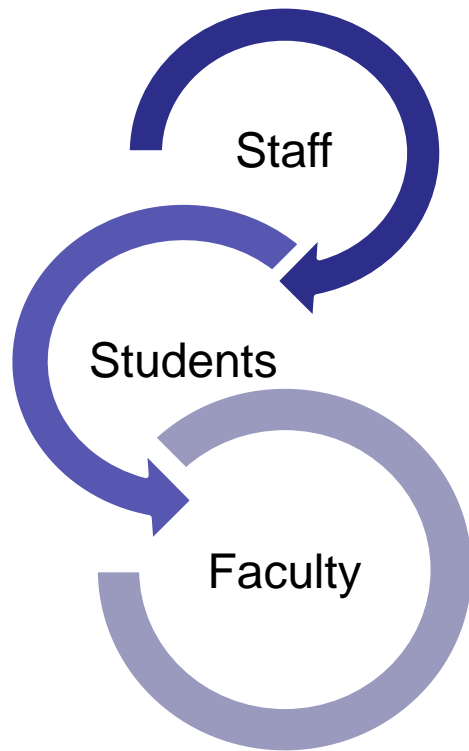
We responded to the following evaluation questions:

1. How do faculty typically search and retrieve scholarly sources (books, journal articles, and other documents)?
2. What are a few faculty as “personas” based on online use behaviors and preferences for search and retrieval of scholarly sources?



Guiding Evaluation Theory

Stakeholder-centric
(Weaver & Cousins, 2007)



Utilization-based
(Patton, 2008)

- Library client reviewed instruments
- Data gathered and summarized by evaluation question



Why Develop Personas?

- Personas are used in conjunction with scenarios or stories of use
- Bring real users to life as an inspiration for website designers
- Create and innovate!
- Enable software developers to better empathize with user needs



Ways to Create Personas

- Often created using a combination of methods
- Not often verified or member-checked
- Typical techniques:
 - Expert brainstorming or ad-hoc (Pruitt and Adlin, 2006)
 - Data-driven (Mulder & Yaar, 2007)
 - Qualitative
 - Quantitative



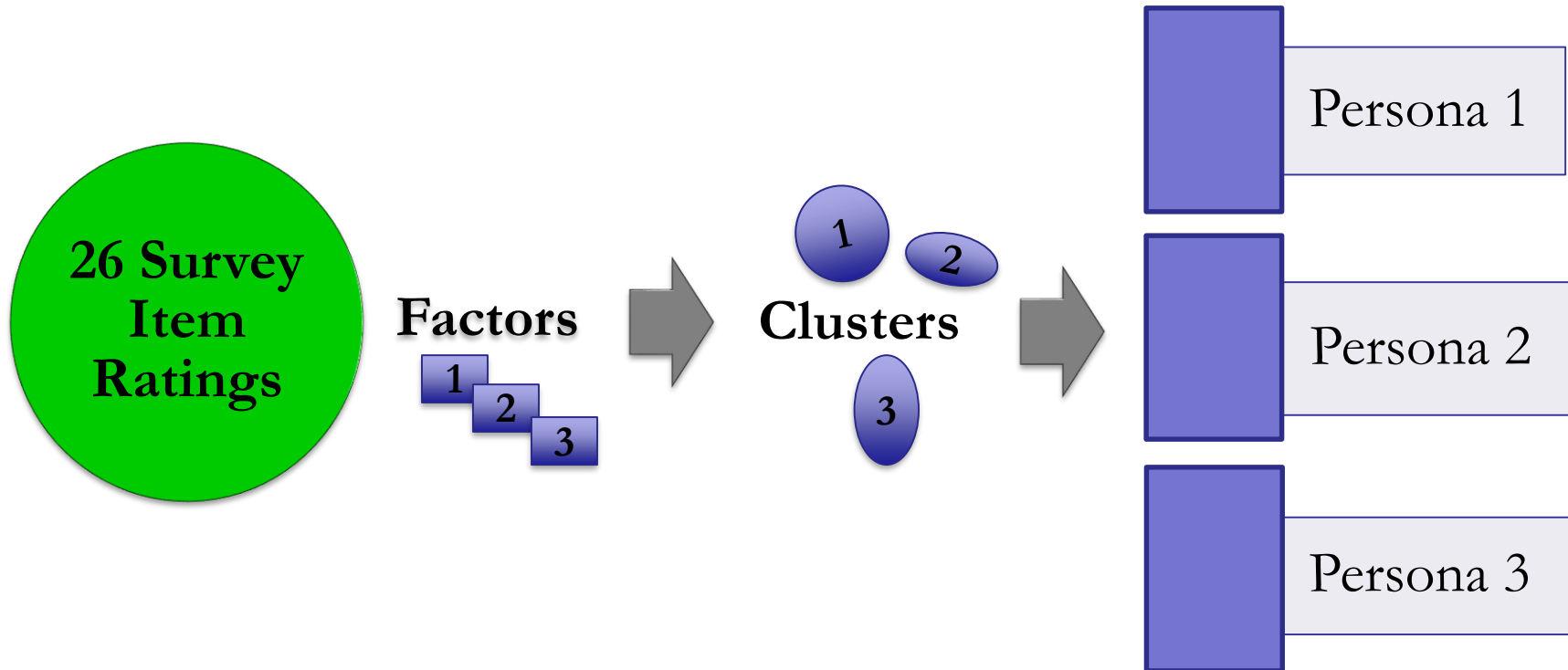
Evaluation Questions

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1. How do faculty typically search and retrieve scholarly sources (books, journal articles, and other documents)?
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Our Path to Personas: Survey



Reduce Ratings → Reuse to Cluster → Recycle as Personas



Participant Faculty

- Outreach librarians contacted the faculty they serve with a request to complete the survey
- 57 faculty completed the survey (66 initiated)
- Response rate of approximately 14% of active faculty



Participant Faculty

Many faculty were experienced users of the library website:

91% at least monthly

50%+ more than 10 years

96% at least a year



Survey

Rating Scale:

5	4	3	2	1
Very true	Somewhat true	Neutral	Somewhat untrue	Very untrue

- For charts:
 - *Very* and *Somewhat True* and *False* ratings were collapsed into bipolar true and false categories
 - *Neutral* was maintained
- Exact ratings were used for statistical analyses



Example Survey Items

Faculty Survey - River Campus Libraries Website

Internet Use

6. Please rate each statement based on how well it reflects your opinion of technology and the internet.

When I use technology or the internet, I...

	Very true	Somewhat true	Neutral	Somewhat untrue	Very untrue
wish I could avoid it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
consider myself savvy.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
share my personal life through social media such as Facebook, Instagram, or Twitter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
communicate scholarly information through social media such as Facebook, Instagram, or Twitter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Internet Use
Scholarly Work Behaviors
Search / Retrieval Strategies

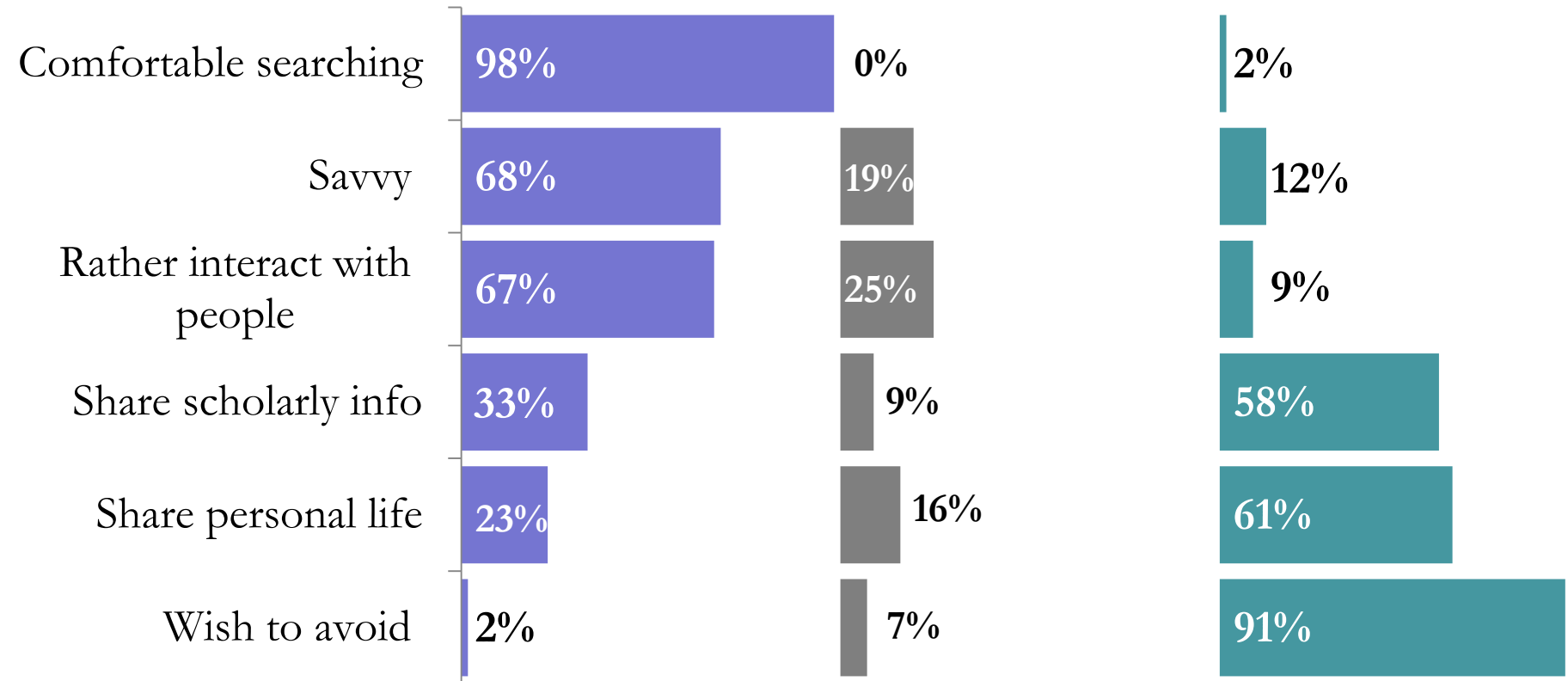


Survey Results: Internet Use

True

Neutral

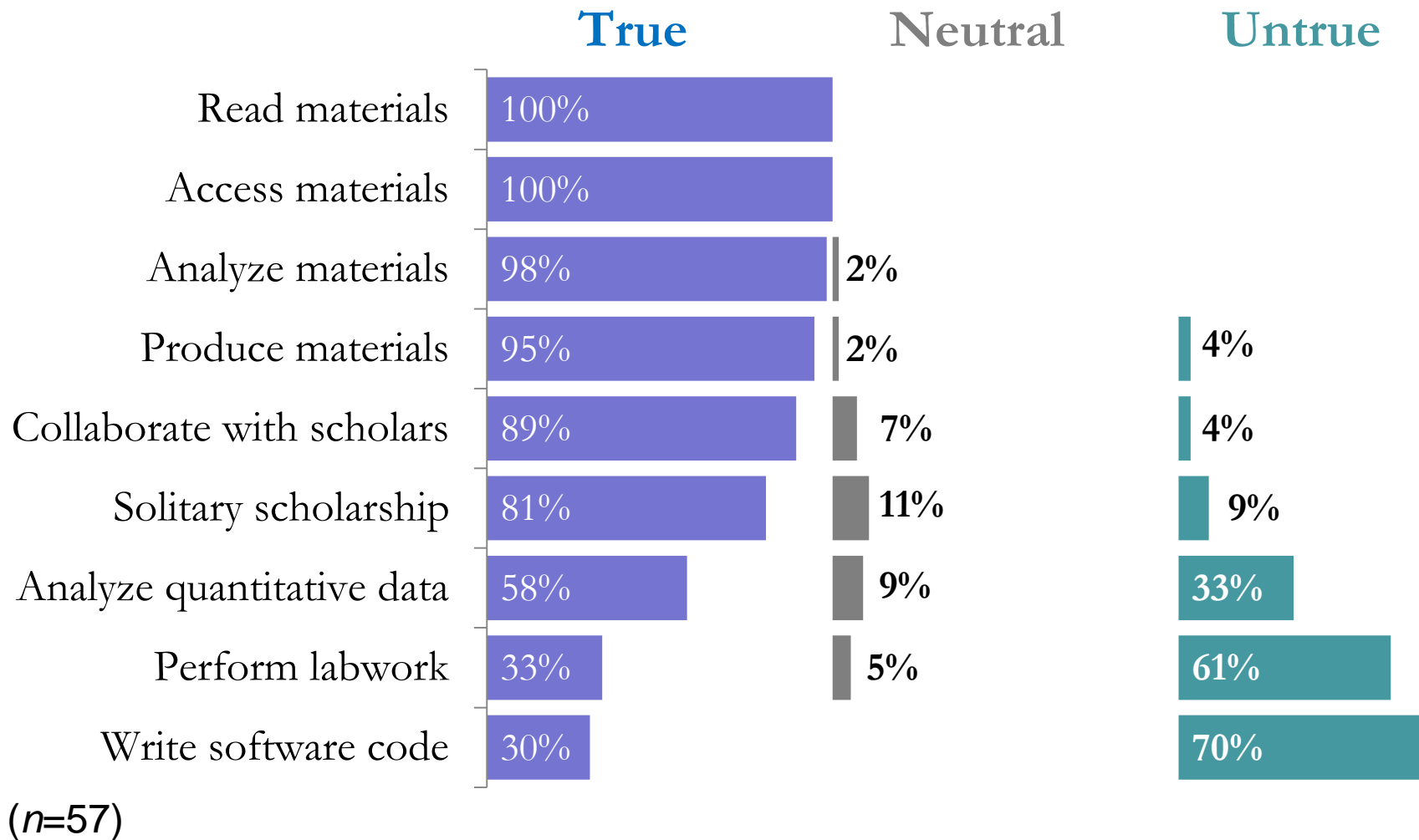
Untrue



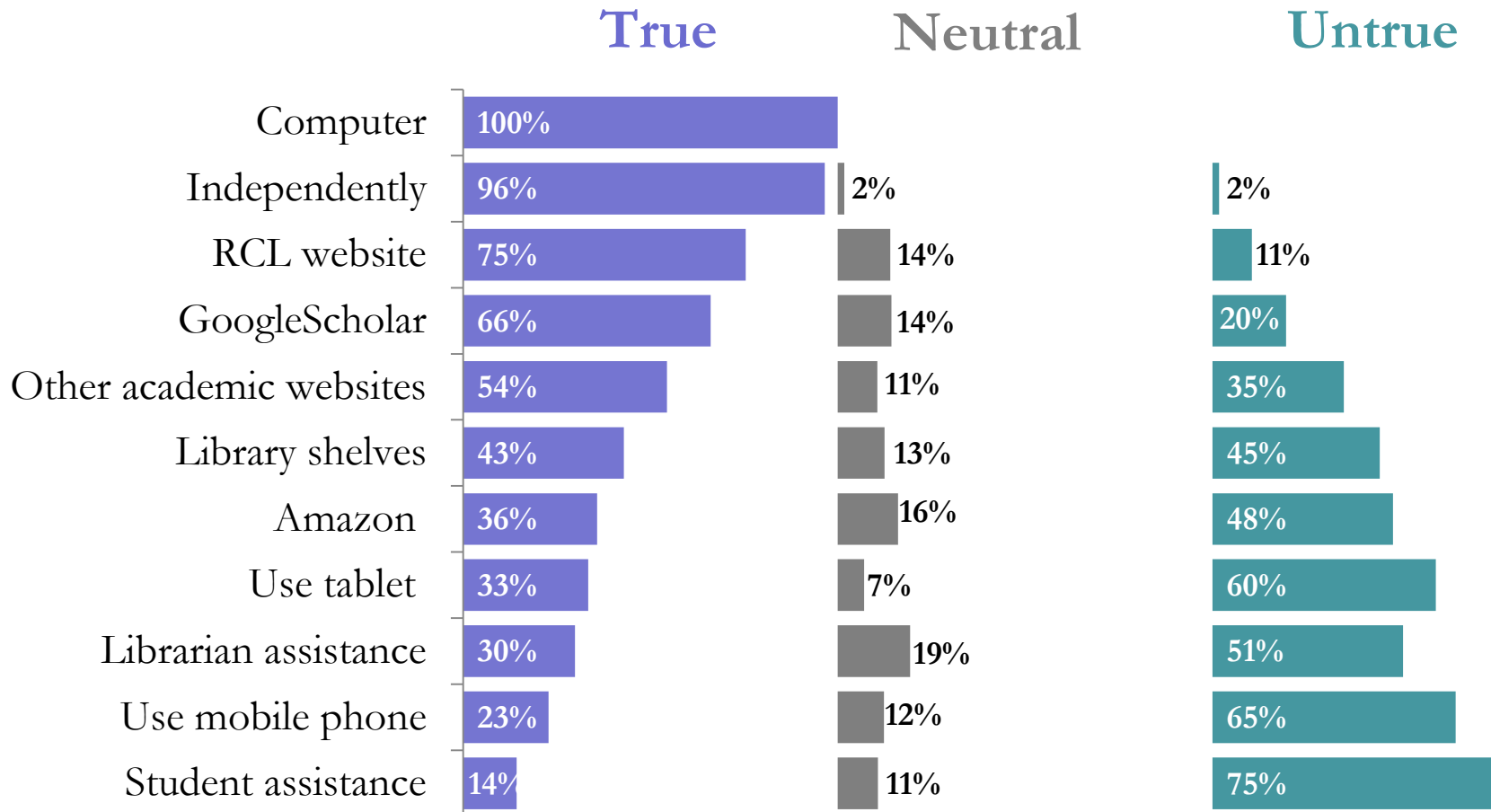
(n=57)



Survey Results: Scholarly Work Behaviors



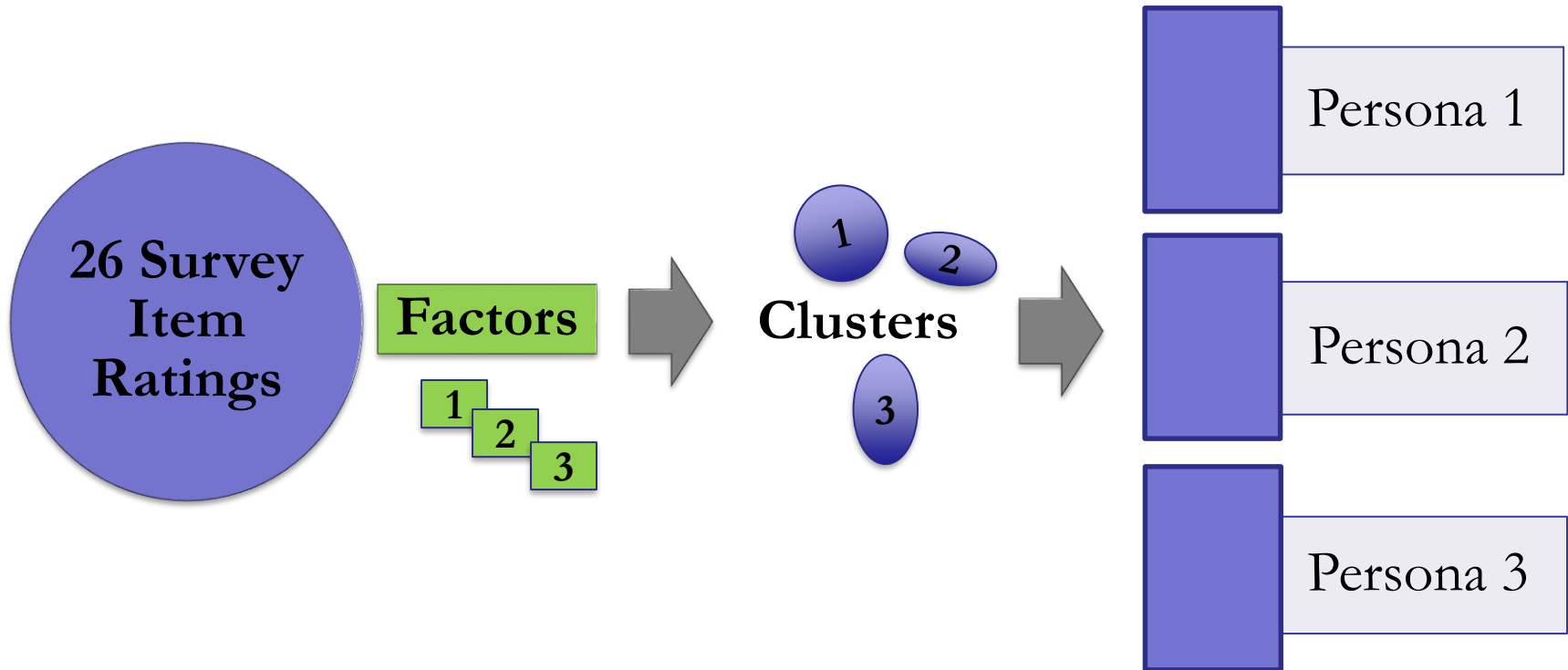
Survey Results: Search Strategies



(n=56-57)



Our Path to Personas: Factors



Reduce Ratings → Reuse to Cluster → Recycle as Personas



Exploratory Factor Analysis Results

	Rotated Factor Loadings		
	Scholarly	Technical	Online
Analyze materials	.850		
Produce materials	.823		
Search independently	.792		
Perform labwork		.921	
Write software code		.897	
Interact with people			.900
Search RCL website			.767
Eigenvalues	2.31	1.98	1.00
% of variance	33.02	28.25	14.34
Alpha	0.74	0.84	0.62
Mean (range = 1 to 5)	4.80	2.25	3.96
Standard Deviation	0.44	1.53	0.86

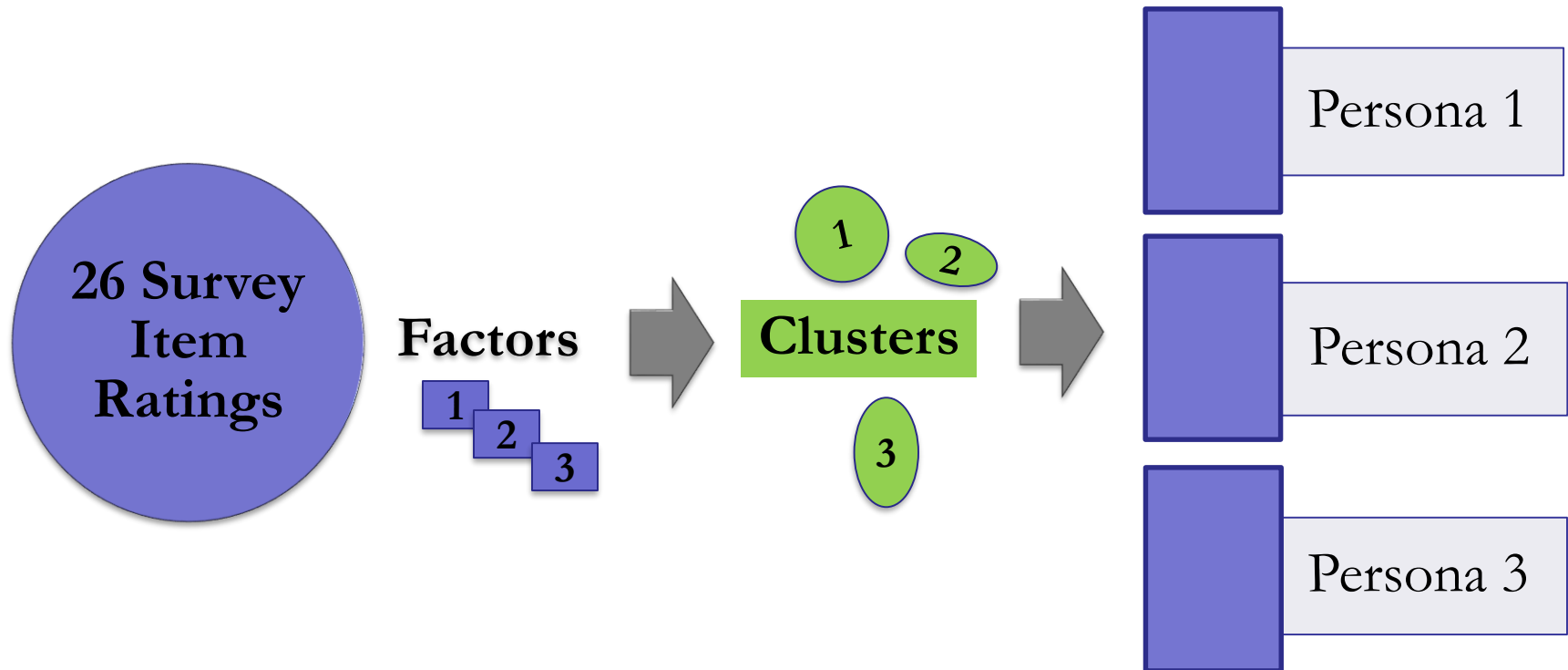
Reduced 26 survey items (internet use, work behaviors, and search strategies) to 7 retained items.

Three factors used to create summative scales

Method: Principal Component with Varimax Rotation



Our Path to Personas: Clusters



Reduce Ratings → Reuse to Cluster → Recycle as Personas



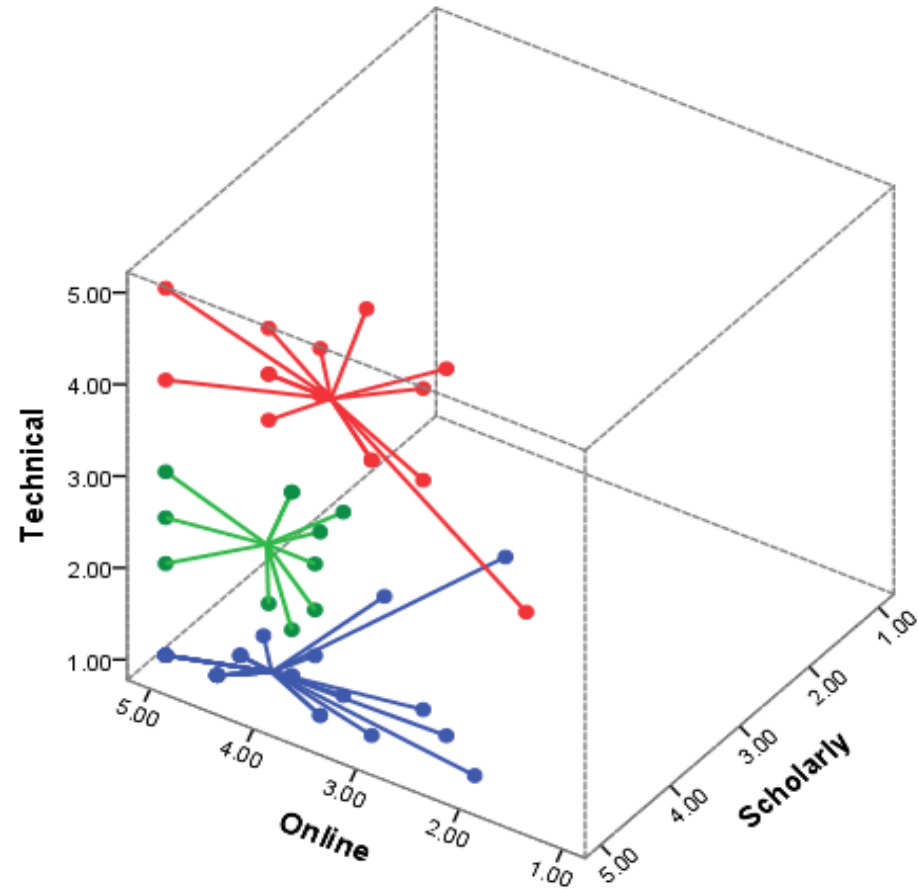
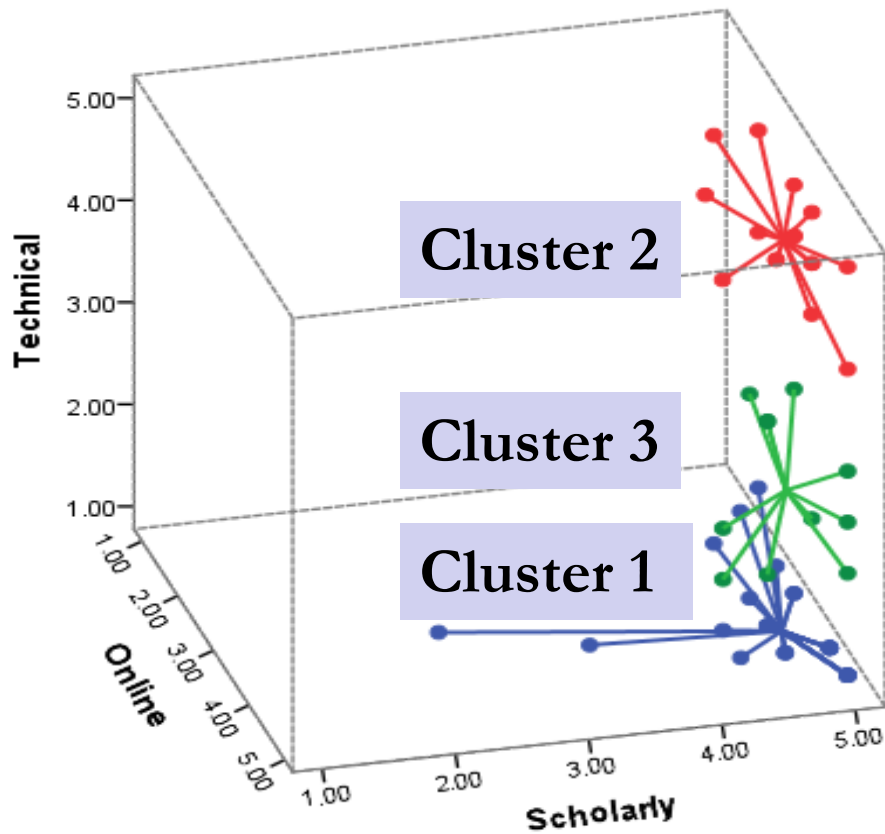
Cluster Analysis

- **Reused** summative scales for three factors (scholarly, technical, and online) to cluster faculty responses
- Ward's method of hierarchical clustering using squared Euclidean distances was used to compute groupings of faculty members that were similar in a three-dimensional space
- Each cluster with unique characteristics encompassed a persona

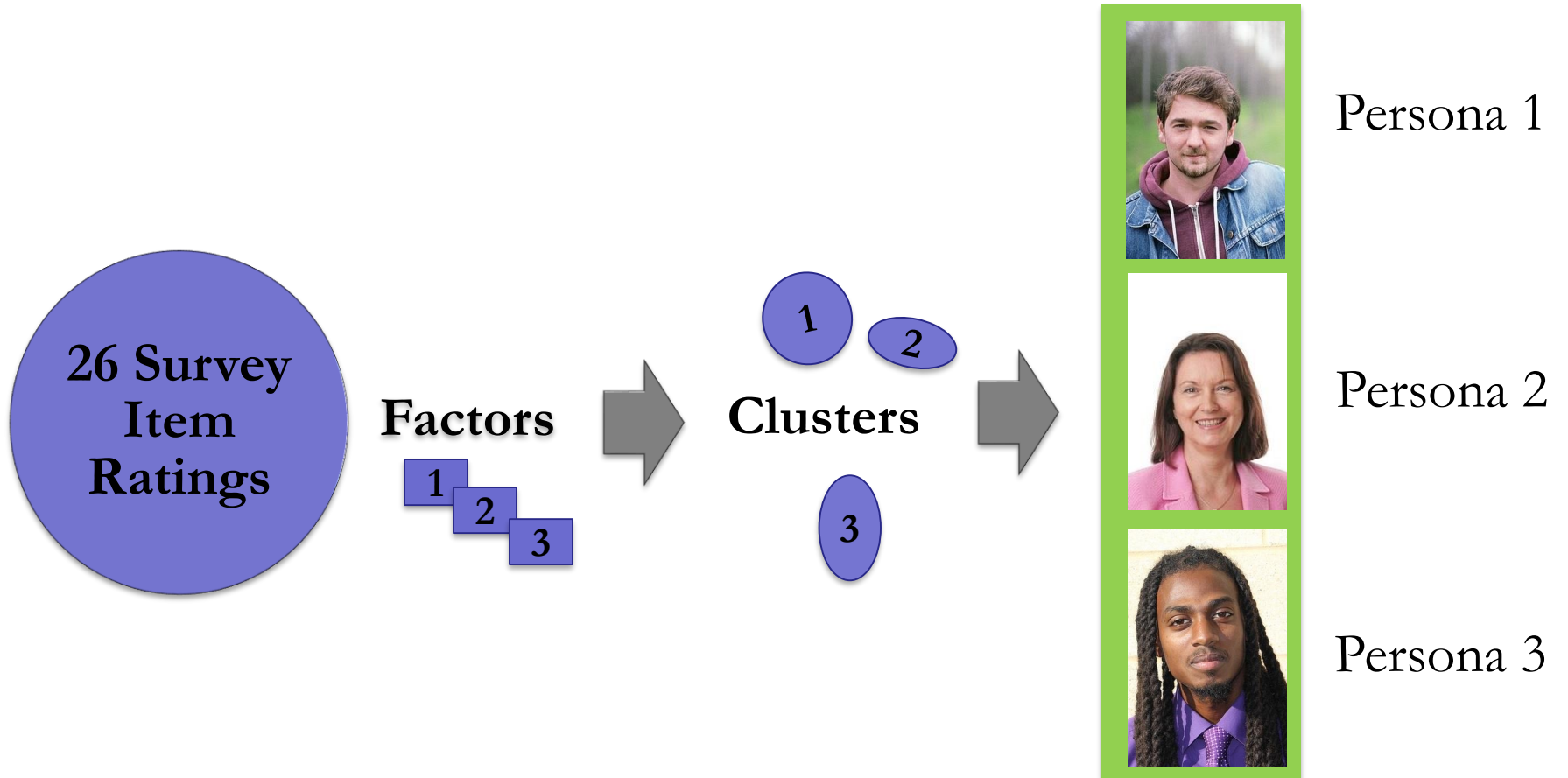
	Scholarly	Technical	Online
Cluster 1 = Persona 1	Varied	Low	Varied
Cluster 2 = Persona 2	High	High	Varied
Cluster 3 = Persona 3	High	Mid	High



Cluster Analysis



Personas



Reduce Ratings → Reuse to Cluster → **Recycle as Personas**



Persona 1: Paul - History

Focus: contextual importance of agri-businesses on development of housing tracts

Current Work: historical analysis of botanical prints and artifacts in conjunction with interviews with nurserymen descendants

Scholarly Outputs: books and book chapters rather than adding to any corpus of technical literature.

Library Needs:

Special collections: Botanical Print Collection

Interlibrary loan: recent works in visual analysis

Special collections librarian: *Analyzing Visual Documents for Historical Research* class



Persona 2: Karen - Computer Science

Focus: cross-over research between data science and education

Current Work: developing data mining algorithms that combine student classroom behavior with course management system data

Scholarly Outputs: journal articles and conference presentations

Library Needs:

Website search: retrieve electronic versions of journal articles

Course reserve: materials for *Bayesian Data Mining* course.



Persona 3: Luke - Clinical Psychology

Focus: social alienation and addiction to video games

Current work: collects data with avid video game players meta-analysis of the gaming and addiction literature

Scholarly Outputs: journal articles

Library Needs:

Website search: retrieve electronic versions of journal articles

Interlibrary loan: specific genre of historical literature of online gaming

Outreach librarian: invitation to his undergraduate class *Introduction to Addictions* to review material search



Limitations

- Sample size ($n=57$) was limited for factor analysis
- The *online* factor was borderline in reliability (.62)
- Survey was lengthy and fatigue was evident by some incomplete responses
- Personae development is a subjective process

